

Electrophoresis

Autoradiography

Kodak BioMax Light Film

Double-emulsion film on clear base. Provides clearest background and highest sensitivity for chemiluminescence detection systems. Also suitable for autoradiography, but with less sensitivity for high-energy isotopes than X-Omat AR and BioMax MS, and than BioMax MR for medium-energy isotopes.

Kodak, No.	Size (in. / cm)	Cat. No.	Pkg/50
Sheets of film with no interleaved paper			
Light-1 868 9358	5 × 7 (13 × 18)	Z37,039-8	
Light-1 819 4540	7 × 9½ (18 × 24)	Z37,350-8	
Light-1 178 8207	8 × 10 (20 × 25)	Z37,037-1	
Light-1 153 8966	9½ × 12 (24 × 30)	Z37,351-6	
Light-1 862 5170	14 × 17 (35 × 43)	Z37,349-4	

Each sheet individually wrapped in a light-tight envelope

Light-2 Ready Pack 191 7012	5 × 7 (13 × 18)	Z37,042-8	
Light-2 Ready Pack 876 1520	8 × 10 (20 × 25)	Z37,040-1	

Kodak BioMax MR Film

Single-emulsion film that provides maximum resolution and clearest background. The most sensitive film for direct ¹⁴C, ³⁵S, and ³³P autoradiography. Higher resolution than X-OMAT AR and BioMax MS for ³²P direct and screen exposures and chemiluminescence, but with reduced sensitivity.

Kodak, No.	Size	Cat. No.	Pkg
Sheets of film with no interleaved paper			
MR-1 894 1114	5 × 7 in.	Z35,039-7	25 50
MR-1 873 6936	7 × 9½ in.	Z35,394-9	50
MR-1 870 1302	8 × 10 in.	Z35,037-0	50 150
MR-1 875 6447	18 × 43 cm	Z35,395-7	50
MR-1 891 2560	24 × 30 cm	Z35,846-0	50
MR-1 892 9655	30 × 40 cm	Z35,847-9	50
MR-1 871 5187	35 × 43 cm	Z35,038-9	50

Each sheet of film is sealed in a light-tight envelope

MR-2 857 2786	13 × 18 cm	Z35,042-7	50
MR-2 895 2855	20.3 × 25.4 cm	Z35,040-0	50
MR-2 856 7232	35 × 43 cm	Z35,041-9	50



Electrophoresis, Autoradiography

Kodak BioMax MS Film

Double-emulsion film specifically engineered for biotechnology applications. Provides maximum sensitivity for detection of ^{32}P and ^{125}I in Northern and Southern blots, reducing quantity of isotope needed.

Kodak, No.	Size	Cat. No.	Pkg/50
Sheets of film with no interleaved paper			
MS-1 829 4985	8 × 10 in.	Z36,300-6	
MS-1 111 1681	13 × 18 cm	Z36,302-2	
MS-1 822 2648	18 × 24 cm	Z36,303-0	
MS-1 832 6886	24 × 30 cm	Z36,304-9	
MS-1 822 0774	30 × 40 cm	Z36,305-7	
MS-1 143 5726	35 × 43 cm	Z36,301-4	
Each sheet of film is sealed in a light-tight envelope			
MS-2 837 7616	8 × 10 in.	Z36,307-3	
MS-2 177 7853	13 × 18 cm	Z36,310-3	
MS-2 176 4505	35 × 43 cm	Z36,308-1	

**Kodak X-Omat AR Film**

Coated with emulsion on both sides of the clear base. Recommended for chemiluminescence. Very versatile for autoradiography with high or low energy isotopes. Sensitivity can be increased with intensifying screens when using low-energy isotopes.

When handling film in a darkroom, the GBX-2 Safelight Filter (F9515) with a 7.5W bulb is recommended.

Kodak, No.	Size	Package (roll)	Cat. No.	Pkg
Each sheet of film is sealed in a light-tight envelope. With high-energy emitters, the film may be exposed directly through the envelope without the use of exposure cassettes or holders.				
XAR-2 165 1579	8 × 10 in.	-	F 5763	50
XAR-2 166 0760	13 × 18 cm	-	F 5888	50
XAR-2 165 1678	35 × 43 cm	-	F 5014	50
Sheets of film are interleaved with sheets of paper.				
XAR-5 165 1454	8 × 10 in.	-	F 5513	50
XAR-5 165 1496	13 × 18 cm	-	F 5388	50
XAR-5 853 2665	18 × 24 cm	-	Z35,848-7	50
XAR-5 150 1451	24 × 30 cm	-	Z35,849-5	50
XAR-5 150 6955	30 × 40 cm	-	Z35,858-4	50
XAR-5 165 1512	35 × 43 cm	-	F 5263	50
Packaged in rolls which can be trimmed in the darkroom to fit.				
XAR-351 153 1680	20 cm × 25 m	1	F 5138	1

Kodak X-Omat RA Duplicating Film

Single-emulsion film on clear base. Designed specifically for 1:1 duplication of autoradiograms or stained electrophoresis gels. Create contact prints with a radiographic duplicating unit or by direct exposure to UV light such as BLB fluorescent lamps. Can be processed with the same cycles and chemicals as original films.

Kodak, No.	Size	Cat. No.	Pkg/100
140 9760	8 × 10 in.	Z35,881-9	
138 9923	35 × 43 cm	Z35,882-7	

Kodak X-Omat LS Film

Kodak Life Science Imaging film is equivalent to XRP. Coated with emulsion on both sides of a blue-tinted base, produces higher quality images than XAR film (improved definition with less background fog), however, the exposure time is approximately doubled. Sheets of film are interleaved with sheets of paper.

Kodak, No.	Size (in. / cm)	Cat. No.	Pkg/50
191 0009	5 × 7 (13 × 18)	F 1274	
160 4545	8 × 10 (19.5 × 25.5)	F 1149	
181 1769	14 × 17 (35 × 43)	F 0899	

Autoradiography Film Binder

Sturdy, vinyl-covered, 10-ring loose-leaf binder for storing and protecting autoradiography films. Supplied with 10 pre-punched protectors, each of which can accommodate two 14 × 17 inch (35 × 43 cm) films. With additional protectors, capacity of binder is about 40 films.

Binder **Z37,751-1** 1 each

Includes 10 sheet protectors

Additional Sheet Protectors **Z37,753-8** 1 pkg

For Autoradiography film binder

Pkg of 10



Envelopes, Film Filing

Heavy-duty Kraft envelopes with printed spaces for I.D. data.

5 x 7 in. (13 x 18 cm) film **E 2637** 100 each

8 x 10 in. film **E 2762** 500 each

Film Hangers

For tank development of X-ray film. Stainless steel frame has attached clips to hold the film taut. The holder for 36 in long film holds the film tightly in a "U" shape to fit a standard tank.

See also: Drying Rack for Film. Storage Rack for Film Hangers

For 5 X 7 in. and 13 x 18 cm film **F 6013** 1 each

For 8 x 10 in. film **F 6138** 1 each

For 14 x 17 in. and 35 x 43 cm film **F 6263** 1 each



Identi-Kit for Autoradiography Film

Kit contains non-radioactive phosphorescent, adhesive-backed numbers, letters and arrows for use with autoradiographic films. **I 5263** 1 each

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Kodak Processing Chemicals for Autoradiography Films

Description	Cat. No.	Pkg
For manual processing		
GBX developer/replenisher	P 7042	1 gal 5 gal
GBX fixer/replenisher	P 7167	1 gal 5 gal
GBX developer and fixer twin pack	Z35,414-7	1 set
For automated processing systems		
RP X-Omat developer/replenisher	Z35,409-0	4 × 1 gal 2 × 5 gal
RP X-Omat LO fixer/replenisher	Z35,410-4	4 × 1 gal 2 × 5 gal
RP X-Omat developer starter	Z35,411-2	1 Pak
For cleaning developer racks and circulation systems.; For automated processing systems		
Developer system cleaner	Z35,412-0	1 gal
For cleaning fixer and wash racks, and fixer circulation systems.; For automated processing systems		
Fixer/Wash system cleaner	Z35,413-9	2.5 gal

Storage Rack for Film Hanger

For storage of X-ray film hangers;
holds 12-15 hangers.
Screws included for wall mounting.
Stainless steel

S 7645 1 each

Drying Rack for X-ray Film

For air-drying X-ray films in film hangers.
Screws included for wall mounting.
Stainless steel
Capacity, 12 hangers
L: 20 in.

D 3411 1 each



Security Bag for X-ray Film

Contains and protects a whole box of x-ray film in a light-tight environment. The fabric is tightly woven black nylon coated inside with opaque black vinyl. The overlapping flap closure secures the bag on all edges with a hook-and-loop seal.

For 5 x 7 inch (13 x 18 cm) film **Z38,014-8** 1 each

For 8 x 10 inch (20 x 25 cm) film **Z38,015-6** 1 each

For 14 x 17 inch (35 x 43 cm) film **Z38,016-4** 1 each

Developing Tank, Acrylic

An economical alternative to the stainless steel developing tank; constructed of 3/8in. black acrylic to protect film and chemicals from exposure to light.

Overall dimensions: 23x13x15in. (HxWxD); accommodates film hangers up to 14x17in.

All three compartments have drains with hose connections. Side compartments (for developer and fixer) have acrylic covers. Center compartment (for washing film) has an overflow for constant water circulation.

Built-in carrying handles make the unit semi-portable, though we do not recommend trying to move it when it is filled.



Developing Tank, Stainless Steel

Tank measures 20 x 16 x 36 in. **T 1294** 1 each
(51 x 42 x 92 cm)

heli-arc welded type 316 stainless steel baked enamel painted steel stand
Includes two 5-gal inserts, two insert covers, standpipe drain system, and agitating jet water inlet.

Thermometer for Developing Tank

For monitoring temperature in developing tank without thermostatic mixing valve.

Dial-type, fluorescent **T 6655** 1 each
Calibrated from 50-150 °F (10-65 °C).

Glass, floating **T 6780** 1 each
Calibrated from 25-100 °F (-3-38 °C)



Exposure Cassette Kodak BioMax

Lightweight, durable, vinyl-covered aluminum cassettes, light-tight with single locking clip.

When used at ultracold temperature, allow to come to room temperature before opening to avoid cracking polyurethane hinge.

For 14 in. x 17 in. (35 x 43 cm) film without screen. **C 4604** 1 each

For 8 x 10 in. film without screen **C 4729** 1 each

Exposure Cassette/BioMax Intensifying Screen Set

Set contains one Kodak BioMax lightweight, vinyl-covered aluminum cassette and one Kodak BioMax MS intensifying screen. When used at ultracold temperature, allow to come to room temperature before opening to avoid cracking polyurethane hinge.

For 35 x 43 cm film **C 4854** 1 each

For 8 x 10 in. film **C 4979** 1 each

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Exposure Cassette Security Bag

Augmented light protection of exposure cassettes which may leak light when old, worn, or damaged. Made of black nylon with hook-and-loop sealing strip on flap. Accepts exposure cassettes up to 14 x 17in. (35 x 43cm).

Z36,350-2 1 each

Exposure Cassette/Sigma Lite Plus Intensifying Screen Set

Set contains one stainless steel exposure cassette and one Sigma Lite Plus intensifying screen

Description	Cat. No.	Pkg/1 set
5 x 7 in. (13 x 18 cm) film	E 6767	
7 x 9.5 in. (18 x 24 cm) film	Z36,012-0	
7 x 17 in. (18 x 43 cm) film	Z36,014-7	
8 x 10 in. film	E 6892	
14 x 17 in. (35 x 43 cm) film	E 7017	
24 x 30 cm film	Z36,013-9	
30 x 40 cm film	Z36,015-5	



Exposure Cassette Stainless Steel with Metal Crossbar Closure

Rugged stainless steel holders for exposing sheet x-ray film during autoradiography. Riveted floating hinges and pressure from cross-bars maintain close contact between film and sample. Felt inner liner forms light-tight seal. Especially suited for use with intensifying screens or for exposures below 0 °C. Stainless steel
Metal cross-bar closure

film(in. / cm)	Cat. No.
5 x 7 (13 x 18)	E 9260
7 x 9½ (18 x 24)	Z36,008-2
7 x 17 (18 x 43)	Z36,010-4
8 x 10 (20.3 x 25.4)	E 9385
14 x 36 (35.6 x 91.4)	E 9635
14 x 17 (35 x 43)	E 9510
9.4 x 11.8 (24 x 30)	Z36,009-0
11.8 x 15.7 (30 x 40)	Z36,011-2

Exposure Cassette/Intensifying Screen - Transcreen

A new concept in intensifying screens provides improved resolution and maximum sensitivity and can now enhance exposures with low-energy beta-emitters. Conventional intensifying screens capture particles after they have passed through the film and "reflect" them back as light. Low-energy particles can never reach a conventional intensifying screen. TranScreens, placed between the gel or blot and the film, intercept particles and "transmit" them to the film as visible light. Choose from:

- **LE** for low-energy β -emitters like ^3H , ^{14}C , ^{33}P , ^{35}S , ^{45}Ca , and ^{59}Fe
- **HE** for high-energy β -emitters like ^{32}P and γ -emitters like ^{125}I

Both are optimized for use with BioMax MS film, but can be used with other films.

BioMax Cassette with 1 BioMax TranScreen HE, 35 cm \times 43 cm	C 5104	Inquire
BioMax Cassette with 1 BioMax TranScreen HE, 8 in. \times 10 in.	C 5229	1 each
BioMax Cassette with 1 BioMax TranScreen LE, 35 cm \times 43 cm	C 5354	Inquire
BioMax Cassette with 1 BioMax TranScreen LE, 8 in. \times 10 in.	C 5479	1 each

Exposure Cassette, Nynyl-Covered with Velcro Closure

Flexible pebbled vinyl outer cover and a Velcro closure facilitate handling in the darkroom.

Economical alternative to stainless steel cassette for exposures down to -70°C .

For 5 x 7 in and 13 x 18 cm film	E 8510	1 each
For 8 x 10 in film	E 8635	1 each
For 14 x 17 in and 35 x 43 cm film	E 8760	1 each

Exposure Cassette/X-Omatic Intensifying Screen Set

Set contains one Kodak BioMax lightweight, vinyl-covered aluminum cassette and two Kodak X-Omatic intensifying screens.

When used at ultracold temperature, allow to come to room temperature before opening to avoid cracking polyurethane hinge.

For 14 x 17 in. (35 x 43 cm) film	C 5604	1 each
For 8 x 10 in. film	C 5729	1 each



Fluoro-Sheet

Fluoro-Sheet, a UV-transmittable sheet can provide reliable protection against scratches and nicks to the surface of a transilluminator's filter glass. Fluoro-Sheet provides a two-dimensional fluorescent scale. This improved versatility provides researchers a better way to assess the distance of DNA migrated in the gel, since the rate of DNA migration is not always the same on each side of the gel. It is designed for UV transilluminators of medium (300 nm) and long (365 nm) wavelengths. Does NOT transmit UV of short wavelength (260 nm).

For 10 x 9 cm gels	F 1176	2 each
For 20 x 19 cm gels	F 1301	2 each

Electrophoresis, Autoradiography

Kodak BioMax MS Intensifying Screens without Lead Blockers

Phosphor emits green light, closely matched to the spectral sensitivity of BioMax MS film; provides highest sensitivity for ^{32}P and ^{125}I autoradiography.

Description	Cat. No.
For 14 in. x 17 in. film	Z36,316-2
For 8 in. x 10 in. film	Z36,315-4
For 12 in. x 16 in. film	Z36,320-0
For 7 in. x 10 in. film	Z36,318-9
For 10 in. x 12 in. film	Z36,319-7



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Intensifying Screens BioMax TranScreen

A new concept in intensifying screens provides improved resolution and maximum sensitivity and can now enhance exposures with low-energy β -emitters.

Conventional intensifying screens capture particles after they have passed through the film and "reflect" them back as light. Low-energy particles can never reach a conventional intensifying screen. TranScreens, placed between the gel or blot and the film, intercept particles and "transmit" them to the film as visible light. Choose from:

LE for low-energy β -emitters like ^3H , ^{14}C , ^{33}P , ^{35}S , ^{45}Ca , and ^{59}Fe

HE for high-energy β -emitters like ^{32}P and γ -emitters like ^{125}I .

Both are optimized for use with BioMax MS film, but can be used with other films.

Description	Cat. No.
LE for 8 in. x 10 in. film Can easily be cut to fit 18 x 24 cm film	Z37,425-3
HE for 8 in. x 10 in. film Can easily be cut to fit 18 x 24 cm film	Z37,431-8
LE for 14 in. x 17 in. film	Z37,426-1
HE for 14 in. x 17 in. film	Z37,432-6
HE for 14 in. x 17 in. film with BioMax vinyl-clad aluminum exposure cassette	Z37,434-2

Dupont Cronex Quanta III Intensifying Screens without Lead Blockers

An ultra speed rare-earth intensifying screen for general autoradiographic use. For autoradiography exposures greater than 24 hours, we recommend the Lightning Plus intensifying screens.

For 5 x 7 in and 13 x 18 cm film	I 4636	2 each
For 14 x 17 in and 35 x 43 cm film	I 4886	2 each

Sigma Lite Plus Intensifying Screens without Lead Blockers

An economical alternative to the Dupont Cronex Lightning Plus.

Description	Cat. No.	Pkg/2
For 7 x 17 in. and 18 x 43 cm film	Z36,019-8	
For 10 x 12 in and 24 x 30 cm film	Z36,017-1	
For 7 x 9.5 in and 18 x 24 cm film	Z36,016-3	
For 14 x 17 in. and 35 x 43 cm film	I 6143	
For 8 x 10 in film	I 6018	
For 30 x 40 cm film	Z36,020-1	
For 5 x 7 in. and 13 x 18 cm film	I 5893	

Sigma Rarex Blue III Intensifying Screens without Lead Blockers

A blue-emitting, rare earth screen which is compatible with full or half speed films. The construction of these screens is specially designed to maximize useful life and minimize damage due to moisture and other common contaminants.

For 8 x 10 in film	Z37,387-7	2 each
For 5 x 7 in and 13 x 18 cm film	Z37,386-9	2 each
For 14 x 17 in and 35 x 43 cm film	Z37,388-5	2 each

Kodak X-Omatic Regular Intensifying Screens without Lead Blockers

Phosphor coating on flexible polyester support emits near UV and blue light, optimized for use with Kodak XAR film. Without foam backing.

For 8 x 10 in film	Z35,699-9	Inquire
For 9.5 x 11.8 in and 24 x 30 cm film	Z35,701-4	2 each

Intensifying Screen Cleaner

Dupont Cronex **I 7888** 16 fl oz

Removes dust and dirt, and dissipates static charge from intensifying screens.

Alcohol free in dispenser-top bottle

R: 36/37/38 S: 26-36

Labels, Phosphorescent

4 X 6 inch sheets **L 5149** 1 pkg

Label sheets for autoradiograms. Identifying marks are written on the label with an ordinary black pen, then affixed to a membrane or gel (the label is self-adhesive). A clear negative image of the markings is transferred to the autoradiogram, regardless of the length of the exposure.

Package contains ten 4 x 6 inch sheets, which may be cut to size.

Pkg of 10 sheets



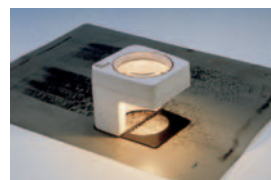
Illuminated Magnifier

Facilitates reading autoradiograms and similar finely detailed data. **Z36,353-7** 1 each

The 3in. coated lens

provides 3x magnification with a 5x insert near the edge. Focused bulb is controlled by a three-position switch (OFF-ON-MOMENTARY ON). Reticle is marked off in 1 cm divisions.

Battery power: 2 C cells (not included)



Autoradiography Pen

Non-radioactive markers for annotating autoradiograms. The ink is bright green, visible in normal light, and phosphoresces with an emission peak at 560 nm. The emission is of long duration, but too weak to see in the dark. Total energy can be adjusted by pre-exposure to room light.

Normal energy level **Z36,351-0** 1 each

For use with Kodak X-Omat AR and films of similar sensitivity.

High energy level **Z36,352-9** 1 each

Higher emissivity and longer duration for use

with less sensitive films and under conditions that make film less responsive.



Electrophoresis, Autoradiography

Rulers, Autoradiography

Non-radioactive phosphorescent emission intensity is adjusted to provide sharp markings on autoradiograms and subsequent photographs. Visible under normal lighting. Supplied with adhesive backing. Can be used with preflashed film and intensifying screens.
Pkg. contains four 11 × 200 mm rulers.

R 8133 1 pkg

Rulers, Fluorescent

Two different intensities match different fluorescent samples. Clearly visible at 300 and 350 nm.
Pkg. contains two 7 × 200 mm and two 7 × 100 mm rulers.

R 8008 1 pkg

Blotting

Blotting Paper Extra Thick

Tested for suitability in Western blots. Two sheets are enough to complete transfer of proteins.

7 cm × 10 cm	P 4431	100 each
15 cm × 15 cm	P 4681	100 each
20 cm × 20 cm	P 4556	100 each

Immobilon™-PSQ Polyvinylidene Difluoride Membranes

PVDF

Immobilon-PSQ membranes are PVDF with greater protein binding capacity than standard Immobilon-P. Thus, in protein sequencing applications, dramatically higher yields can be obtained. Repetitive yields are typically higher than 90%.
Note: We recommend traditional Immobilon-P membranes for routine Western blotting applications. Immobilon-PSQ membranes are functional in these applications but will have higher background.

Pore Size: 0.1 μm

10 cm × 10 cm	P 3063	10 each
15 cm × 15 cm	P 3188	10 each
20 cm × 20 cm	P 3313	10 each

Immobilon™-NC HAHY

Nitrocellulose with a small amount of cellulose acetate for improved handling. Water-extractables <5%, including a Triton wetting agent. For Southern blots, protein electroblotting, capillary blotting of DNA, RNA, protein.

Pore Size: 0.45 μm

R: 11 S: 16-33-37/39

	N6520	N6645	N6770	N5895	N7020
diam.	12 × 12 in.	1 × 10 ft	82 mm	85 mm	137 mm
Pkg	10	40	50	50	50

Immobilon™-NC HATF

Nitrocellulose with a small amount of cellulose acetate for improved handling. Triton-free. For colony hybridization, plaque lifts, colony growth directly on membrane.

Pore Size: 0.45 μm

R: 11 S: 16-33-37/39

	N7770	N8020	N7145	N7270	N7395	N7520
diam.	9 × 12 cm	20 × 20 cm	82 mm	85 mm	132 mm	137 mm
Pkg	10	10	50	50	50	50

NitroCellulose Membranes for Blotting

Nitrocellulose membranes are the most popular membranes for immunoblotting (Western blotting) of proteins. The basis of protein binding to nitrocellulose is believed to be due to hydrophobic interactions. The 0.45 μm pore size is the most commonly used for proteins greater than 10,000 MW, but for smaller proteins 0.2 μm is recommended to more efficiently trap the proteins.¹

Ref.:

1. Lin, J.C. and Kasamatsu, H., On the electrotransfer of polypeptides from gels to nitrocellulose membranes *Anal. Biochem.* **128**, 302-311 (1983)
2. Van Oss, C.J., et al., Mechanism of DNA (Southern) and protein (Western) blotting on cellulose nitrate and other membranes. *J. Chromatogr.* **391**, 53-65 (1987)
3. Gershoni, J.M. and Palade, G.E., Electrophoretic transfer of proteins from sodium dodecyl sulfate-polyacrylamide gels to a positively charged membrane filter *Anal. Biochem.* **124**, 396-405 (1982)

R: 11 S: 16-33-37/39

15 cm × 15 cm Pore Size: 0.2 μm	N 7892	5 each
20 cm × 20 cm Pore Size: 0.2 μm	N 8017	5 each
7 cm × 10 cm Pore Size: 0.45 μm	N 8142	10 each
15 cm × 15 cm Pore Size: 0.45 μm	N 8267	5 each
20 cm × 20 cm Pore Size: 0.45 μm	N 8392	5 each

Nylon Membranes, Charge Modified

Non-curling, positively charged Nylon 66 membrane tested for suitability in electroblotting of proteins. Also suitable for gold staining and immunoblotting. Anionic dyes (e.g., Amido Black, Coomassie Blue, Ponceau S) give high backgrounds with these membranes.

0.2 μm, 15 cm × 15 cm	N 6644	5 each
0.2 μm, 20 cm × 20 cm	N 6769	5 each
0.45 μm, 15 cm × 15 cm	N 2394	5 each
0.45 μm, 20 cm × 20 cm	N 2519	5 each

Quickdraw™ Blotting Paper

QuickDraw blotting paper is used for Northern, Southern and Western blots. QuickDraw is a clean and fast alternative to paper towels for Southern and Northern capillary transfer. Ten sheets of the QuickDraw extra thick will produce complete capillary transfer in two hours. The extra thick QuickDraw blotting paper is also ideal for Western blotting to sandwich the gel and the membrane. The thick blotting paper is used as a filter support for dot blots in filtration manifolds. The medium thickness blotting paper is suitable for use as a wick during the transfer. The blotting paper is available in several convenient sizes so that cutting is not necessary.

Ref.:

1. Southern, E.M., Detection of specific sequences among DNA fragments separated by gel electrophoresis *J. Mol. Biol.* **98**, 503-517 (1975)
2. Towbin, H., et al., Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets: procedure and some applications. *Proc. Nat. Acad. Sci. USA* **76**, 4350-4354 (1979)
3. Sambrook, J., et al., *Molecular Cloning: A Laboratory Manual* 2nd ed., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 1989), 7.39-7.49

Medium thickness, 30 cm × 30 cm	P 6914	100 each
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Medium Thickness, 33 cm × 56 cm	P 9039	50 each 100 each
Thick, 20 cm × 20 cm	P 6664	50 each 100 each
Thick, 33 cm × 56 cm	P 9164	50 each 100 each
Extra Thick, 7 cm × 8 cm	P 6928	100 each
Extra Thick, 7 cm × 10 cm	P 7796	100 each
Extra Thick, 10 cm × 15 cm	P 8046	100 each
Extra Thick, 11 cm × 14 cm	P 6803	100 each
Extra Thick, 14 cm × 20 cm	P 8549	100 each
Extra Thick, 15 cm × 15 cm	P 7921	100 each
Extra Thick, 20 cm × 20 cm	P 8171	100 each
Extra Thick, 20 cm × 25 cm	P 7176	100 each

Semi-Dry Blotter

Excellent for Western, Northern, or Southern transfers, unit accepts one or several gels up to 20 x 20 cm, and varying thickness.

Stainless steel cathode and platinum anode plates produce highly uniform field and resist corrosion. Mylar shield provided to mask unused area of cathode, prevents arcing, ensures all current passes through gel

Blotter unit Z34,050-2 1 each

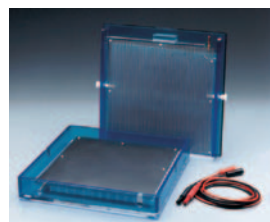
- Rugged acrylic construction
- Completely safe system
- Large active transfer area 20 x 20 cm
- Low buffer volume
- Low heat production-less band distortion
- Multiple gel system
- Short transfer times
- Recommended power supplies: Consort E802 or E844
- Includes leads and Mylar shield

Complete unit B 2529 1 each

Complete with two Mylar shields, safety-tip power leads and interlocking safety cover.

Replacement Mylar shield M 8034 1 each

Mylar shield masks unused area of cathode, insuring that all current passes through gel.



Semi-Dry Blotters, W.E.P.

Novel design incorporates several safety and convenience features. Proprietary resin-impregnated carbon electrodes deliver extremely uniform current and efficiently dissipate heat. The cover can only be placed in the proper orientation and the anode lead can be attached only with the cover in place. Except for the last unit below, units have 18 x 18 cm electrode surface and accommodate transfer stacks up to six layers of gels and membranes (multi-gel stacks are not recommended for nucleic acid transfers). Units with safety switch and/or timer operate on 120/240V, but 240V line cords are not included.

With photoelectric safety switch, 120 V Z35,877-0 1 each

With photoelectric safety switch, 120 V / 240 V Z36,183-6 1 each

Power to electrodes is discontinued whenever the cover is removed or when it is improperly placed.

With safety switch, timer, and integral 0-30 V power supply, constant current settable 0-3A, 240 V Z36,188-7 1 each



Electrophoresis, Blotting

Accommodates only a single gel layer, but sized for convenient side-by-side blotting of standard-sized gels.

24 x 30 cm
AC input: 120 V



Sigma Mini Wet Blotting Unit

Uses open square grid design cassettes that give maximum area for transfer while maintaining firm contact between gel and membrane. Densely coiled platinum wire electrodes give very uniform electric field. Based around wet blotting module which holds two cassettes and using the same tank and lid as the Sigma Mini Vertical Gel Electrophoresis set.

For gels up to 105 × 100 mm, electrophoresed in the Sigma Mini Vertical Gel Electrophoresis set.

Unit set	Z34,047-2		Inquire
Blotting Module Only	Z34,046-4	1 each	
For use in Sigma mini tank		1 pkg	

Sigma Mini Wet Blotting Module Accessories

Fibre pads	Z34,049-9	1 pkg
Size: 10 cm × 10 cm Pack of 4		

Compression cassette	Z34,048-0	1 each
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TurboBlotter Rapid Downward Transfer System

A new procedure for fast, efficient alkaline blotting of DNA and RNA in an hour. The downward capillary format eliminates the need for heavy weights which compress and distort gels. More nucleic acid is transferred to the membrane, resulting in sharper, more discrete bands. The unique low-molarity (8mM NaOH) transfer buffer means that RNA can be transferred without hydrolyzing, resulting in up to 80% greater efficiency compared to overnight SSC Northern blots.

The device can also be used for standard SSC Southern transfers, which can be completed in about 3hours.

Each unit includes a buffer tray, a stack tray, a wick cover, packets of consumables for five transfers, and a protocol for use.

	Z38,189-6	Z38,192-6	Z38,193-4	Z38,194-2
Size (cm)	11 × 14	15 × 20	15 × 15	20 × 25
	1 Each			

Nytran Refill for TurboBlotter

Replenishable packet of Turboblotter consumables, sufficient for 5 transfers.

	Z38,196-9	Z38,195-0	Z38,198-5	Z38,197-7	Z38,199-3
Size (cm)	10 × 15	11 × 14	15 × 15	15 × 20	20 × 25
	1 Each				

Electrophoresis, Gel handling

Gel Handling


**Science is Changing.
Are You?**

Fortune Magazine calls
RNAi technology "Biotech's Billion
Dollar Breakthrough"

RNAi: A Guide to Gene Silencing
Catalog Number Z70,113-0

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Electrophoresis Film for Agarose Gels

Electrophoresis film is a flexible, transparent polyester film specifically designed to support agarose gels. Ideal for casting horizontal agarose gels for immunoelectrophoresis and immunodiffusion. One side has been treated with a hydrophilic coating, which enhances adhesion with aqueous agarose gel media.

- Gels cast on the electrophoresis film remain permanently attached to the film during electrophoresis, staining and drying.
- Handling of thin agarose gels is much easier when attached to electrophoresis film.
- Gels attached to electrophoresis film remain flexible after drying.

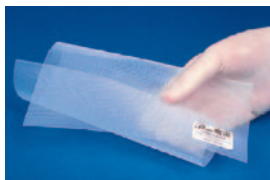
Fluorescence may be exhibited under ultraviolet light which may interfere with some fluorimetric detection methods.

Roll 4 in. × 54 ft Film 7 mil (0.2 mm) Thickness	E 0880	1 each
Roll 5 in. × 54 ft Film 7 mil (0.2 mm) Thickness	E 1005	1 each
Roll 6 in. × 54 ft Film 7 mil (0.2 mm) Thickness	E 1130	1 each
Sheet 85 mm × 100 mm Film 7 mil (0.2 mm) Thickness	E 0264	100 each

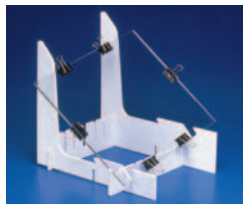
Electrophoresis Film for Polyacrylamide Gels

7 mil (0.2 mm) thickness **E 0389** 50 each
124 mm × 258 mm sheets

Electrophoresis film is a flexible, transparent polyester film specifically designed to support polyacrylamide gels. Ideal for casting horizontal IEF gels. One side has been treated with a hydrophilic coating which enhances adhesion with aqueous polyacrylamide gel media. The acrylamide monomers covalently attach to the coating during polymerization. Gels remain attached during electrophoresis, staining and drying.


Flow-Mesh Gel and Membrane Support

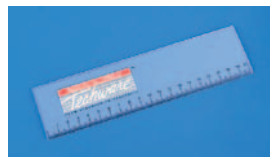
Inert perforated mesh with a high fraction of **Z37,761-9** 1 pkg
open volume, permitting free diffusion of solutions around gels. Use mesh to support gels and membranes for any solution treatment: staining/destaining, probing, incubation, etc. Supported gels and membranes will not tear or bend, and may be stacked for efficient use of time and solutions.
May be cut to size with scissors.
sheet Size: 8½ in. × 11 in.
Pkg of 20 sheets


Gel Casting Stand

A multi-positional stand for casting electro- **Z37,439-3** 1 each
phoresis gels. Angles of 0°, 10°, 45°, or 60° from vertical can be selected, as well as a 10° slope to the left or right. Rack comes apart and stores flat to save space.

Gel Cutter Acrylic

20 cm long, with millimeter graduations. The beveled edge cuts agarose or polyacrylamide gels conveniently and accurately. **G 4778** 1 each



Gel Handler Gel Support

Sheet W 8½ in. × L 11 in. × thickness 5 mil **Z37,695-7** 1 pkg (0.125 mm)

UV-transparent polyolefin Gel-Handler sheets easily slide under a gel resting in solution for transport to bench or transilluminator. The sheet is sturdy, but it conforms to the shape of the gel, reducing the trapping of air bubbles. Sheets are chemically inert, autoclavable and reusable.

May be cut to size with scissors.

Pkg of 10 sheets



Gel Repel Glass Plate Coating

A non-toxic alternative to silanization for pre-treatment of glass plates for sequencing or other PAGE techniques. Pre-treatment assures trouble-free disassembly of gel sandwich. **Z37,624-8** 1 pkg

Each cloth will treat one or two sequencing plates or several PAGE plates (depending on size).

Pkg of 25 cloths



Gel Scoop UV-Transparent Acrylic

Constructed of 1/8-inch acrylic for easy transfer of polyacrylamide and agarose gels between electrophoresis unit, stain/destain tray, and transilluminator.

Design includes offset handle, a beveled edge to simplify lifting gel, and upturned sides to keep the gel on the blade.

Dimensions are for the flat part of the scoop.

Size (cm)	Cat. No.
7.5 × 10	G 6902
14 × 20	G 7027
20 × 20	G 7152

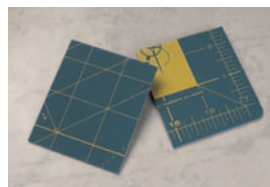


NEW Harris Cutting Mat

Versatile, inert, self-healing cutting mats are designed for repeated, extended use and easy maintenance. Available in two sizes; can be cleaned with alcohol.

L 8 in. × W 6 in. × D 1.5 mm **Z70,875-5** 5 each

L 3 in. × W 2.5 in. × D 1.5 mm **Z70,876-3** 5 each



NEW Harris Micro-Punch

Multi-purpose sampling tool for standardizing samplings sizes of DNA blood cards to 1.2 mm in diameter. It is a coring tool designed for simultaneous sample extraction, collection and storage in one operation. Rockwell hardened, hand sharpened tips, are designed for long shelf-life and precise repeatable samples with accurate delivery placement.

I.D. 1 mm **Z70,863-1** 1 each

I.D. 1.2 mm **Z70,865-8** 1 each



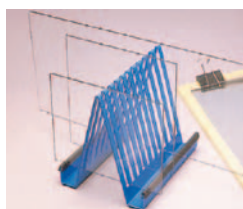
Electrophoresis, Gel handling

I.D. 2 mm	Z70,866-6	1 each
I.D. 3 mm	Z70,867-4	1 each
Replacement tip, I.D. 1 mm	Z70,868-2	1 each
Replacement tip, I.D. 1.2 mm	Z70,869-0	1 each
Replacement tip, I.D. 2 mm	Z70,870-4	1 each
Replacement tip, I.D. 3 mm	Z70,871-2	1 each
Replacement plunger, O.D. 1.2 mm	Z70,872-0	1 each
Replacement plunger, O.D. 2 mm	Z70,873-9	1 each
Replacement plunger, O.D. 3 mm	Z70,874-7	1 each

NEW Harris Uni-Core

An inexpensive disposable multi-purpose coring tool designed for simultaneous sample extraction, collection and storage in one operation. Suitably samples thin and soft substrates including filter paper, gels and dried blood on cards. Units can be autoclaved at 250 °C for limited re-use.

I.D.(mm)	Cat. No.	Pkg/25
0.5	Z70,877-1	
0.75	Z70,879-8	
1	Z70,880-1	
1.25	Z70,882-8	
1.5	Z70,883-6	
2	Z70,884-4	
2.5	Z70,885-2	
3	Z70,886-0	
3.5	Z70,887-9	
4	Z70,888-7	
5	Z70,889-5	
6	Z70,890-9	
7	Z70,891-7	
8	Z70,892-5	



Electrophoresis Plate Rack, Coated Steel

Offers unmatched versatility for conveniently drying and storing up to 10 electrophoresis plates (7 slots for single plates and 3 slots for double plates). Made of epoxy-coated heavy-duty steel, with rubber pads on the bottom of the rack to keep the rack from sliding.

Z37,442-3 1 each



Electrophoresis Plate Rack, Polypropylene

Electrophoresis Gel Plate rack has 10 places for holding glass plates and a weighted base for safety. Wide handles provide a secure grip while transporting the rack, filled with plates, from the bench to the sink. Smooth polypropylene material cushions glass edges to reduce chipping and cracking. Available in white polypropylene with steel fittings. A flat area on each end is designed for labeling racks as used, unused, treated or untreated. Rack has a footprint of 8 in. x 15 in. x 9 in. and weighs 3³/₄ lbs.

E 1028 1 each

Plate Separator Wedges

Small polycarbonate wedges that facilitate safe separation of gel plates after electrophoresis. Just insert a wedge between the plates – either just inside the “ear” at the top or just inside the spacer at the bottom – and push with steady force. A slight twist sometimes helps. Can also be used to scrape gel residue off without scratching the glass.

Z37,303-6 2 each

Gel Pouring

Gradient-Forming Devices

Constructed of two equal-diameter heavy-walled acrylic cylinders secured to an acrylic base. Teflon stopcock between cylinders is closed for filling, then opened. Exit port from mixing chamber is also controlled by stopcock. Geometry permits use of magnetic stirring bar in mixing chamber.

	G6897	G7022	G7147	G7272	G7397
total capacity(mL)	50	100	200	300	550

1 Each



Gradient Mixer

Sigma offers four sizes of gradient mixers. The small, 15 and 25 mL mixers are ideal for the preparation of centrifugation gradients, using sucrose or cesium chloride solutions. The larger, 50 and 100 mL mixers are mainly used for the preparation of linear polyacrylamide gel gradients. The 100 mL mixer is configured to be used in conjunction with the multicaster systems. All of the mixers are produced from a single acrylic block. They consist of two chambers, a reservoir and a mixing chamber, with an interconnecting valve. A second valve regulates the output flow from the mixing chamber. A magnetic stirring bar can be placed in the mixing chamber to maintain a constant gradient. All of the mixers have a flat base to enable them to be placed on a magnetic stirrer. They also have a support rod which can be used to fix the mixers to a stand for extra stability.

	Z34,039-1	Z34,040-5	Z34,041-3	Z34,042-1
Size (mL)	15	25	50	100

1 Each



Gel Staining

CoZap for Coomassie Blue Removal

A fast, simple way to remove Coomassie blue. No excess buffer nor charcoal required; no dye residues.

C 4351 25 each
100 each

Extractor for Ethidium Bromide Decontamination

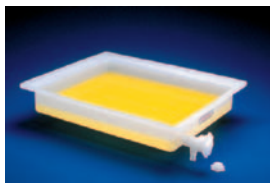
The extractor for ethidium bromide decontamination is a self-contained activated carbon extraction device for removing mutagenic ethidium bromide (EtBr) from electrophoresis buffers. Each unit processes a liter of buffer in less than a minute, removing >99% of EtBr and maintains this efficiency for up to 10 liters [initial (EtBr) approx. 0.5 mg/liter]. Assuming no other environmentally hazardous components, processed buffer can be discarded down the laboratory drain.

Fits most standard laboratory flasks. Includes a cap for storage between uses and an adhesive label to log usage 0.5 liter at a time.

Z36,156-9 2 each
6 each



Electrophoresis, Gel staining



Gel Fixing Tray

Constructed of heavy polyethylene with a stiffening flange at the top and ridges in the bottom to prevent suctioning of glass plates. Chemically resistant to most common staining and fixing mixtures. The drain stopcock in the side with 1.8 meters (6 ft.) Vikem[®] vinyl tubing 13 mm (1/2 in.) ID allows more complete drainage and a more controlled drain rate to avoid disturbing the gel. Hooks on the rim of the tray hold the tubing. Inside dimensions given.

16 x 20 x 3 in. (40 x 50 x 7.5 cm) **Z36,341-3** 1 each

21.5 x 25.5 x 4 in. (55 x 65 x 10 cm) **Z36,342-1** 1 each

Gel Staining Tray

Optically clear down to 300 nm; photograph **T 0567** 4 each
gels with UV or visible light right in the tray.

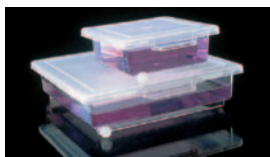
Small feet at corners protect bottom from scratching. Stackable: rock several gels at once; stacking seals tray below to prevent evaporation and spills. For use with aqueous staining and destaining solutions only.

L x W: 7½ in. (19 cm) x 7½ in. (19 cm)

Instastain™ Protein Gel Staining Paper, 10x10cm

Used for staining proteins separated on **I 0656** 25 each
either agarose or polyacrylamide gels.

Area: 10 cm (10 cm)



Staining Box, Nalgene

Constructed of PCTG [poly(1,4-cyclohexylene dimethylene terephthalate)glycol] with a polypropylene copolymer cover and PDPE plug. Designed for staining and destaining electrophoresis gels. Resists temperatures from -70 ° to +70 °C and is resistant to acids, bases, and some organic solvents. Plug allows draining without handling gels. Stackable.

L x W x H(cm)	Cat. No.	Pkg/2
12.5 x 12.5 x 5	Z35,829-0	
22.5 x 22.5 x 5	Z35,830-4	

Horizontal



Horizontal IBI Electrophoresis Units

These units are complete designs that incorporate the best features of the popular IBI units.

Features:

- Durable acrylic construction with fewer seams and more unitized parts
- Vented safety lid allows heat to escape and improves visibility by reducing condensation
- External casting system allows one gel to be cast (without tape) while another is running.
- Electrical contact is made by gently placing the lid on the chamber, eliminating sample disturbance during set-up
- Gel trays are transparent to 312 nm UV light to allow visualization on the tray
- Dark stripes below each comb position make it easy to see wells in submerged gel
- Platinum electrodes and gold-plated contacts resist corrosion

Each of these units comes complete and includes a casting system with UV-transparent gel tray, leveling bubble, power leads, 2 combs and buffer recirculating ports. Does not include extra gel-casting accessories, combs, or replacement parts.

Model QS 710, Quick Screening **Z35,587-9** 1 each

Includes two 1.5mm × 8-tooth combs
 Capacity, 30 samples two 15-tooth combs
 Comb positions, 2
 Gel W × L: 7 cm × 10 cm
 Buffer capacity: 250 mL

Model MP 1015, Multipurpose **Z35,604-2** 1 each

Includes two 2mm × 16-tooth combs
 Capacity, 80 samples four 20-tooth combs
 Comb positions, 5
 Gel W × L: 10 cm × 15 cm
 Buffer capacity: 500 mL

Model HR 2025, High Resolution **Z35,626-3** 1 each

Includes two 2mm × 20-tooth combs
 Capacity, 160 samples four 40-tooth combs
 Comb positions, 5
 Gel W × L: 20 cm × 25 cm
 Buffer capacity: 1200 mL

Gel Casting System and Tray For IBI Horizontal Units

An economical way to acquire additional casting accessories for fast turn-around between runs.

	Z35,590-9	Z35,607-7	Z35,630-1
Size (cm)	7 × 10	10 × 15	20 × 25

1 Each**Gel Casting System for IBI Horizontal Units**

Accessory holds casting tray and positions comb for leak-free gel casting without tape. One included with each base unit.

	Z35,589-5	Z35,606-9	Z35,629-8
Size (cm)	7 × 10	10 × 15	20 × 25

1 Each**Gel Casting Tray for IBI Horizontal Unit**

Transparent to 312 nm UV, so gel does not have to be removed from tray for viewing. One included with each base unit.

	Z35,588-7	Z35,605-0	Z35,627-1
Size (cm)	7 × 10	10 × 15	20 × 25

1 Each**Buffer Recirculation Ports for IBI Electrophoresis Units**

Replacements for ports included with MP 1015 and HR 2025 units.

For MP 1015 **Z35,622-0** 1 set

For HR 2025 **Z35,654-9** 1 set

Combs for MP 1015 IBI Electrophoresis Unit

Size	Cat. No.	Pkg/2
1.0 mm × 10 wells	Z35,608-5	
1.0 mm × 16 wells	Z35,611-5	
1.0 mm × 20 wells	Z35,619-0	
1.0 mm × 1 wells (preparative well plus 2 marker lanes)	Z35,615-8	
1.0 mm × 2 wells (preparative well plus 2 marker lanes)	Z35,617-4	
2.0 mm × 10 wells	Z35,609-3	
2.0 mm × 16 wells	Z35,612-3	
2.0 mm × 20 wells	Z35,620-4	
2.0 mm × 1 wells (preparative well plus 2 marker lanes)	Z35,616-6	
2.0 mm × 2 wells (preparative well plus 2 marker lanes)	Z35,618-2	
3.0 mm × 10 wells	Z35,610-7	
3.0 mm × 16 wells	Z35,613-1	
3.0 mm × 20 wells	Z35,621-2	
3.0 mm × 1 wells (preparative well plus 2 marker lanes)	Z35,624-7	
3.0 mm × 2 wells (preparative well plus 2 marker lanes)	Z35,625-5	

Combs for QS 710 IBI Electrophoresis Unit

Size	Cat. No.	Pkg/2
1.0 mm × 8 wells	Z35,591-7	
1.0 mm × 12 wells	Z35,592-5	
1.0 mm × 15 wells	Z35,593-3	
1.0 mm × 1 wells (preparative well)	Z35,598-4	
1.0 mm × 1 wells (preparative well plus marker lane)	Z35,599-2	
1.5 mm × 8 wells	Z35,594-1	
1.5 mm × 12 wells	Z35,596-8	
1.5 mm × 15 wells	Z35,597-6	
1.5 mm × 1 wells (preparative well)	Z35,601-8	
1.5 mm × 1 wells (preparative well plus marker lane)	Z35,602-6	

Quick Loader for Horizontal IBI Units

For MP 1015	Z35,623-9	1 each
For HR 2025	Z35,655-7	1 each

Combs for HR 2025 IBI Electrophoresis Unit

Size	Cat. No.	Pkg/2
1.0 mm × 10 wells	Z35,648-4	
1.0 mm × 12 wells	Z35,632-8	
1.0 mm × 15 wells	Z35,633-6	
1.0 mm × 20 wells	Z35,635-2	
1.0 mm × 30 wells	Z35,638-7	
1.0 mm × 40 wells	Z35,634-4	
1.0 mm × 1 well (preparative well plus 2 marker lanes)	Z35,641-7	
1.0 mm × 2 wells (preparative well plus 2 marker lanes)	Z35,643-3	
2.0 mm × 10 wells	Z35,649-2	
2.0 mm × 12 wells	Z35,650-6	
2.0 mm × 15 wells	Z35,651-4	
2.0 mm × 20 wells	Z35,636-0	
2.0 mm × 30 wells	Z35,639-5	
2.0 mm × 40 wells	Z35,652-2	
2.0 mm × 1 well (preparative well plus 2 marker lanes)	Z35,642-5	
2.0 mm × 2 wells (preparative well plus 2 marker lanes)	Z35,644-1	
3.0 mm × 30 wells	Z35,640-9	
3.0 mm × 1 well (preparative well plus 2 marker lanes)	Z35,646-8	
3.0 mm × 2 wells (preparative well plus 2 marker lanes)	Z35,647-6	

Combs for HR 2025 IBI Electrophoresis Unit

3.0 mm × 20 wells	Z35,637-9	2 each
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Power Leads, 48 in. for Horizontal IBI Electrophoresis Units

For all BioMax submarine units	Z35,603-4	1 set
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Electrophoresis, Horizontal



Z71,007-5

NEW Gel XL-100 Electrophoresis System

The Gel XL-100™ mini-gel electrophoresis system is designed for low voltage separation of nucleic acids and proteins in both agarose and polyacrylamide gel matrices. All components for quickly casting and running horizontal gels are supplied with the system including a gel casting set, gel box and direct-connect power supply.

- Ideal for separation of nucleic acids and proteins
- Cast and run agarose and acrylamide gels in the same apparatus
- Save time by pouring up to 6 mini-gels at once without tape or spacers
- Leakproof gel box with interlocking safety lid provides maximum safety

Specifications:**Gel Casting Set**

Capacity 2 large and 4 small gel trays
Dimensions 126 x 240 x 28 mm (L x W x H)

Power Supply

Input 120VAC, 50/60Hz
Output 50 or 100VDC, selectable
Fuse 0.8A
Dimensions 104 x 40 x 60 mm (L x W x H)

Migration Tank

Gel Capacity 1 large (107 x 26 mm)
2 small (52 x 60 mm)
Safety Mechanical lid interlock
Dimensions 137 x 199 x 75 mm (L x W x H)

Complete with 115V power supply and gel casting set **Z71,005-9** 1 each

Large tray set (2) **Z71,007-5** 1 each
Trays L x W: 10.7 cm x 6 cm

Small gel tray set (4) **Z71,008-3** 1 each
Trays L x W: 5.2 cm x 6 cm

Gel cover set for polyacrylamide gels (2L, 4S) **Z71,009-1** 1 each

Dual format comb set **Z70,010-5** Inquire
2 combs 12/17 and 6/8 teeth

Standard gel casting set **Z71,011-3** 1 each

NEW Gel XL Plus Electrophoresis System

Two tapeless casting sets, a unique direct connect power supply and sturdy migration tank with interlocking safety lid are included with the Gel XL Plus system. No additional equipment is required. Upgraded power supply to include four output voltages (35V, 50V, 100V and 135V) for meeting a wide range of run conditions. Untimed runs and manual power shut off may also be performed. The power supply connects directly into the interlock between the migration tank and lid, preventing the lid from being opened while it is attached. The direct connection also eliminates tangled power leads and ensures that the power supply is connected properly. Individual gel trays fit snugly into the plastic parts, including the gel tank, lid and casting sets, are molded - there are no seams to split or crack. The simplified electronics in the power supply are extremely reliable. The Gel XL Plus carries both UL and CE certifications

Migration tank

Gel capacity 1 extra long 10.7 x 10 cm (W x L), 1 large 10.7 x 6 cm (W x L), 2 small 5.2 x 6 cm (W x L)

Safety Mechanical lid interlock

Dimensions 15 x 19.9 x 7.5 cm (L x W x H)

Power Supply

Input 100VAC to 230VAC, 50/60Hz

Output 35V, 50V, 100V or 135V

Timer 99 min. with hold and audible alert

Dimensions 11.6 x 4.4 x 5.6 cm (L x W x H)

Complete with 115 V power supply and casting sets Z71,006-7 1 each

Preparative comb set Z71,012-1 1 each
2 combs, 25, 12 teeth and prep teeth

Preparative comb set for extra long casting trays Z71,014-8 1 each



Z71,006-7

Horizontal Gel Electrophoresis Unit, High Throughput

With a 26 x 26 cm gel bed, this unit has all Z37,306-0 1 each 356.00 the features of the units in the table above.

But the multiple mini-gel format – effectively eight mini-gels in one – makes screening large numbers of samples easy, consistent, and efficient: up to 192 samples and 24 markers per run. Comb spacing matches multiwell plate spacing, so gels can be loaded with an eight-channel pipette.

Unit includes safety cover, power leads, gel tray, and leveling base. Combs not included. Eight combs are needed to run unit at capacity.

**Combs for High-Throughput Horizontal Gel Unit**

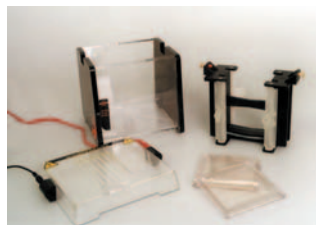
0.75 mm x 24 wells, plus 3 marker lanes Z37,307-9 1 each

1.0 mm x 24 wells, plus 3 marker lanes Z37,308-7 1 each

1.5 mm x 24 wells, plus 3 marker lanes Z37,309-5 1 each

2.0 mm x 24 wells, plus 3 marker lanes Z37,310-9 1 each

Electrophoresis, Horizontal



NEW Universal Protein System

This mini format system is designed to complete analysis in 2 to 3 times faster than conventional gels and is ideal for running all types of precast gels. The Small-Format can run one or two gels in less than 30 minutes. The system can fit either 10 cm X 10 cm precast gels or 8 cm X 10 cm precast gels.

Description Specifications

Overall Height 18 cm

Unit Footprint 17X17 cm

Weight 2.2kg

Voltage Limit 6000 DC

Gel 8 cm × 10 cm **Z71,071-7** 1 each

Inner buffer tank Size: 125 mL

Outer buffer tank Size: 500 mL

Gel 10 cm × 10 cm **Z71,072-5** 1 each

Inner buffer tank Size: 150 mL

Outer buffer tank Size: 350 mL

Sigma Horizontal



Mini Horizontal Electrophoresis Unit

Complete set **Z33,879-6** 1 each

Designed for rapid, routine electrophoresis

for nucleic acids. The Mini unit is designed with a choice of two casting systems: standard casting trays that require sealing tape; or aluminum-gated casting trays that do not.

Includes base unit, safety lid, two casting trays with aluminum gates (one for 6 x 7 cm and one for 6 x 10 cm gels), and two combs (1.0 mm x 8 sample wells and 1.0 mm x 12 sample wells).

Gel width: 6 cm

Mini Horizontal Electrophoresis Unit Accessory

Description	Size (cm)	Cat. No.
Gel Casting Tray, standard form	6 × 7	Z33,899-0
Gel Casting Tray with Aluminum casting gates	6 × 7	Z33,901-6
Gel Casting Tray, standard form	6 × 10	Z33,900-8
Gel Casting Tray with Aluminum casting gates	6 × 10	Z33,902-4
Replacement Aluminum Gates For Mini unit	-	Z33,903-2
Colored Loading Strips For mini horizontal gel electrophoresis unit. Provide a colored background behind sample loading area making sample wells more visible.	-	Z33,904-0
Comb	1.0 mm × 4 wells	Z33,886-9
Comb	1.0 mm × 8 wells	Z33,887-7
Comb well spacing compatible with multichannel pipettes	1.0 mm × 12 wells	Z33,888-5
Comb	1.0 mm × 16 wells	Z33,889-3
Comb	1.5 mm × 4 wells	Z33,890-7
Comb	1.5 mm × 8 wells	Z33,891-5
Comb	1.5 mm × 12 wells	Z33,892-3

Description	Size (cm)	Cat. No.
well spacing compatible with multichannel pipettes		
Comb	1.5 mm × 16 wells	Z33,893-1
Comb	2.0 mm × 4 wells	Z33,895-8
Comb	2.0 mm × 8 wells	Z33,896-6
Comb	2.0 mm × 12 wells	Z33,897-4
well spacing compatible with multichannel pipettes		
Comb	2.0 mm × 16 wells	Z33,898-2

Maxi Horizontal Electrophoresis Units

Designed for both analytical and preparative separations of nucleic acids with buffer circulation ports to prevent buffer depletion. Four comb positions permit the screening of up to 160 samples.

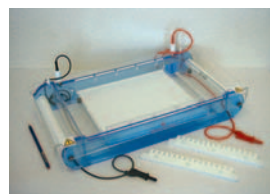
Gel width: 20 cm

Uncooled Unit Z33,882-6 1 set

Includes base unit, safety lid, one standard casting tray for 20 x 20 cm gels, and two combs, 1.0 mm x 16 sample wells

Cooled Unit Z33,883-4 1 set

Includes base unit with hose connectors for circulating coolant, safety lid, one standard casting tray for 20 x 20 cm gels, and two combs, 1.0 mm x 16 sample wells



Maxi Horizontal Electrophoresis Unit Accessory

Description	Size (cm)	Cat. No.
Gel Casting Tray, standard form	20 × 20	Z33,945-8
Coloured gel loading strips	-	Z33,946-6
Provide a colored background behind sample loading area making sample wells more visible.		
Comb	1.0 mm × 16 wells	Z33,932-6
Comb	1.0 mm × 20 wells	Z33,933-4
well spacing compatible with multichannel pipettes		
Comb	1.0 mm × 28 wells	Z33,934-2
Comb	1.0 mm × 40 wells	Z33,935-0
well spacing compatible with multichannel pipettes		
Comb	1.5 mm × 16 wells	Z33,936-9
Comb	1.5 mm × 20 wells	Z33,937-7
well spacing compatible with multichannel pipettes		
Comb	1.5 mm × 28 wells	Z33,938-5
Comb	1.5 mm × 40 wells	Z33,939-3
well spacing compatible with multichannel pipettes		
Comb	2.0 mm × 16 wells	Z33,940-7
Comb	2.0 mm × 20 wells	Z33,941-5
well spacing compatible with multichannel pipettes		
Comb	2.0 mm × 28 wells	Z33,942-3
Comb	2.0 mm × 40 wells	Z33,943-1
well spacing compatible with multichannel pipettes		

Electrophoresis, Sigma horizontal



Maxi-Plus Horizontal Electrophoresis Units

This electrophoresis unit has been specifically designed to allow quick and convenient screening of PCR products. When using a 96 well PCR machine, all samples can be screened on a single gel. Loading is simple using a standard multichannel pipette. The unit is constructed of 12 mm thick acrylic to prevent warping and is supplied with a UV transparent tray for easy visualization. For varying sample numbers a range of alternative combs can be used. As there are 12 comb positions, up to 624 samples can be separated on a single gel. gel width: 25-30 cm

Uncooled Unit **Z33,884-2** 1 set

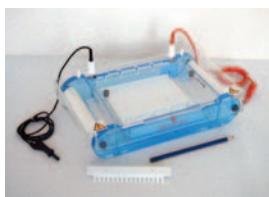
Includes base unit, safety lid, one standard casting tray for 25 x 30 cm gels, and two combs, 1.0 mm x 26 sample wells

Cooled Unit **Z33,885-0** 1 each

Includes base unit with hose connectors for circulating coolant, safety lid, one standard casting tray for 25 x 30 cm gels, and two combs, 1.0 mm x 26 sample wells

Maxi-Plus Horizontal Electrophoresis Unit Accessory

Description	Size (cm)	Cat. No.
Gel Casting Tray, Standard form	25 x 30	Z33,953-9
Coloured gel loading strips	-	Z33,954-7
Provide a coloured background behind sample loading area making sample wells more visible.		
Comb	1.0 mm x 26 wells	Z33,947-4
Comb	1.0 mm x 52 wells	Z33,948-2
Well spacing compatible with multi-channel pipettes		
Comb	1.5 mm x 26 wells	Z33,949-0
Comb	1.5 mm x 52 wells	Z33,950-4
Well spacing compatible with multi-channel pipettes		
Comb	2.0 mm x 26 wells	Z33,951-2
Comb	2.0 mm x 52 wells	Z33,952-0
Well spacing compatible with multi-channel pipettes		



Midi Horizontal Electrophoresis Unit

Designed for both analytical and preparative separations of nucleic acids. These 13 cm wide units are similar to the Mini units, but with the addition of buffer circulation ports. Four comb positions allow up to 112 samples to be screened on one gel.

Includes base unit, safety lid, one standard casting tray for 13 x 15 cm gels, and two combs (1.0 mm x 12 sample wells and 1.0 mm x 16 sample wells). Gel width: 13 cm

Midi Horizontal Electrophoresis Unit

Description	Size (cm)	Cat. No.
Gel Casting Tray, standard form	13 × 10	Z33,925-3
Gel Casting Tray with Aluminum casting gates	13 × 10	Z33,926-1
Gel Casting Tray, Standard Form	13 × 15	Z34,044-8
Gel Casting Tray with Aluminum casting gates	13 × 15	Z34,045-6
Replacement Casting gates	-	Z33,928-8
Colored loading strips, for 13 cm gel trays	-	Z33,929-6
For midi horizontal gel electrophoresis unit. Provide a colored background behind sample loading area making sample wells more visible.		
Comb	1.0 mm × 10 wells	Z33,906-7
Comb	1.0 mm × 12 wells	Z33,907-5
well spacing compatible with multichannel pipettes		
Comb	1.0 mm × 16 wells	Z33,908-3
Comb	1.0 mm × 20 wells	Z33,909-1
Comb	1.0 mm × 24 wells	Z33,910-5
Comb	1.0 mm × 28 wells	Z33,911-3
well spacing compatible with multichannel pipettes		
Comb	1.5 mm × 10 wells	Z33,912-1
Comb	1.5 mm × 12 wells	Z33,914-8
well spacing compatible with multichannel pipettes		
Comb	1.5 mm × 16 wells	Z33,915-6
Comb	1.5 mm × 20 wells	Z33,916-4
Comb	1.5 mm × 24 wells	Z33,917-2
Comb	1.5 mm × 28 wells	Z33,918-0
well spacing compatible with multichannel pipettes		
Comb	2.0 mm × 10 wells	Z33,919-9
Comb	2.0 mm × 12 wells	Z33,920-2
well spacing compatible with multichannel pipettes		
Comb	2.0 mm × 16 wells	Z33,921-0
Comb	2.0 mm × 20 wells	Z33,922-9
Comb	2.0 mm × 24 wells	Z33,923-7
Comb	2.0 mm × 28 wells	Z33,924-5
well spacing compatible with multichannel pipettes		

Buffer Recirculation Connectors for Midi, Maxi, and Maxi-Plus Units

Z33,931-8 1 pkg

NEW Gel Levelling Table

With four leveling screws and a recessed bubble level **Z33,955-5** 1 each

Size: 20 cm × 30 cm

Electrophoresis, Sigma horizontal

Replacement Platinum Electrode Wire

Size: 50 cm × 0.2 mm

Z33,905-9 1 each

Gel-Sealing Tape

Used for sealing the ends of the gel tray during gel formation

Roll 1 in. × 72 yard **T 6781** 1 each

Roll 1½ in. × 72 yard **T 6656** 1 each

Horizontal Submarine



Horizontal Submarine Electrophoresis Units

Submarine gels may be formed directly on the UV-transparent gel bed using small sliding baffles to contain the agarose as it cools, or outside the unit using a UV-transparent gel tray sealed with tape. Gel is 7.5cm wide × 10cm long. Different colors are offered for any color-coding your lab requires (e.g., RNA only).

Combs and tape are not included. Gel tray is not included with the Mini-Gel unit.

Base unit, safety cover, power leads, and all other necessary parts are included.

Description	Material	Cat. No.
base unit, dual mode, mini-gel 7.5 cm wide colorless	acrylic	E 0638
base unit, dual mode mini-gel 7.5 cm wide pink	acrylic	Z37,236-6
base unit, dual mode, mini-gel 7.5 cm wide green	acrylic	Z37,237-4
base unit, dual mode mini-gel 7.5 cm wide yellow	acrylic	Z37,238-2
base unit, single mode wide gel 20 cm wide gel 20 × 20 cm	-	E 1013
base unit, single mode standard gel 14 cm wide gel 14 × 20 cm	-	E 0763
base unit, dual mode wide gel 20 cm wide gel 20 × 20 cm	-	E 1138
base unit, dual mode standard gel 14 cm wide gel 14 × 20 cm	-	E 0888
base unit, dual mode standard gel 14 cm wide gel 14 × 10 cm; Also called a midi-gel, this is a double-wide mini-gel format for high-throughput sample screening.	-	Z37,233-1
base unit, dual mode standard gel 14 cm wide gel 14 × 14 cm; Also called a midi-gel, this is a double-wide mini-gel format for high-throughput sample screening.	-	Z37,235-8

Combs for Horizontal Submarine Electrophoresis Unit

Combs can be aligned with their adjusting screws to form sample wells of any desired depth. Long-lasting anodized aluminum machined to closer tolerances than possible with plastics; heat sink effect produces cleaner wells.

Description	Size	Cat. No.
for Mini-gel 7.5 cm wide	1.0 mm × 8 wells	C 6043
	1.0 mm × 10 wells	C 6168
	1.0 mm × 12 wells	C 6293
	1.0 mm × 16 wells	C 6418
	2.0 mm × 3 wells	C 6543
	2.0 mm × 8 wells	C 6668
	2.0 mm × 10 wells	C 6793
	2.0 mm × 12 wells	C 6918
for Standard gel 14 cm wide	2.0 mm × 16 wells	C 7043
	1.0 mm × 10 wells	C 7168
	1.0 mm × 16 wells	C 7293
	1.0 mm × 20 wells	C 7418
	1.0 mm × 26 wells	C 7543
	2.0 mm × 10 wells	C 7793
	2.0 mm × 16 wells	C 7918
	2.0 mm × 20 wells	C 8043
for Wide gel 20 cm wide	2.0 mm × 26 wells	C 8168
	3.0 mm × 12 wells	C 8293
	1.0 mm × 12 wells	C 8418
	1.0 mm × 16 wells	C 8543
	1.0 mm × 20 wells	C 8668
	1.0 mm × 30 wells	C 8793
	1.0 mm × 40 wells	C 8918
	2.0 mm × 12 wells	C 9168
	2.0 mm × 16 wells	C 9293
	2.0 mm × 20 wells	C 9418
	2.0 mm × 30 wells	C 9543
for Standard gel 14 cm wide	2.0 mm × 40 wells	C 9668
	3.0 mm × 12 wells	C 9793
for Wide gel 20 cm wide	2.0 mm × 3 wells (prep comb with one small center well and two large outer wells)	C 7668
for Wide gel 20 cm wide	2.0 mm × 3 wells (prep comb with one small center well and two large outer wells)	C 9043

Comb Bridge for Horizontal Submarine Units

Used to hold comb when pouring gels directly on the gel bed

For 14 cm wide gels **C 8044** 1 each

for use with dual mode unit E0888 only

For 20cm wide gels **C 8169** 1 each

for use with dual-mode unit E 1138 only

Electrophoresis, Horizontal submarine

Gel Casting Tray for Horizontal Submarine Units

Construction of 1/4 in thick UV-transparent acrylic prevents distortion during gel formation and permits use on a UV transilluminator. Grooves provide for uniform placement of combs near either end or toward the center of the gel. Wells in base form agarose "anchors," preventing gel from floating. Extra trays permit pouring one gel while running another.

	T6281	Z37,347-8	Z37,348-6	T6406	T6531
Size (cm)	7.5 × 10	14 × 10	14 × 14	14 × 20	20 × 20

1 Each

Recirculation Ports, Set for Horizontal Submarine Units

Set consists of four straight and two 90° angle ports, and a bubble level. **P 8799** 1 set

Power Supply



EC Savant® Power Supplies

These models offer power, versatility and ease-of-use. All models operate in constant voltage, current or power operating modes with automatic crossover between modes. Each is compact and lightweight for easy movement. All models feature a large LCD screen to display complete run information on one screen. At each step in programming, the power supply presents the options to the user in clear, concise language. The user simply presses the smart key corresponding to their choice. This information is retained when the unit turned off. These units can store up to 20 ten step programs in permanent memory. H × W × D: 6.2 in. × 12.6 in. × 12.6 in.

Output	AC	Cat. No.
2000	115 V	P 9860
3000	115 V	P 9985
4000	115 V	P 0236
6000	115 V	P 0361



Z71,016-4

NEW Power Station™ Power Supply

Power Station power supplies are ideal for DNA, RNA and protein electrophoresis as well as blotting. They provide a high degree of sophistication and versatility yet are extremely easy to program. Three models are available to meet a variety of user needs.

- **Intelligent control:** The sophisticated microprocessor in the Power Station power supplies utilizes feedback loops to maintain tight control over operating parameters. A number of safety features are incorporated into the software including automatic crossover, no-load detection, sudden load change and over voltage protection. Operation of the power supplies can be timed or continuous, for running up to four gels at one time.
- **Constant voltage or constant current** Power Station power supply output can be set to either constant voltage or constant current with automatic crossover when the preset limit for either parameter is reached. In the event of a power failure, the unit can be programmed to resume the run with the original settings upon restoration of power. An error code will be shown in the display to alert the user that a power failure has occurred.
- **Easy to use** Power Station power supplies are easy to use with very straight forward and simple programming. All operating parameters, including voltage, current and time, are set using the membrane keypad and displayed digitally. The large display is visible from across the laboratory. Four sets of output terminals allow for the simultaneous running of multiple gels from the same power supply. A retractable stand on the bottom allows the power supply to be placed at an angle for easier viewing and access.

200 Output: 200 V, 0.1-2 A	Z71,015-6	1 each
300 Output: 300 V, 4-400 mA	Z71,016-4	1 each
300 Plus Output: 300 V, 4-500 mA	Z71,017-2	1 each

Power Supplies, 2000 Volt or 4000 Volt

4000 V, 110 V, 60 Hz, US 3-pin plug **PS4001-1** 1 each
All units have:

- Constant voltage, constant current, and constant power modes with auto crossover
- Bright LED displays of voltage, current, power, and time; accuracy $\pm 1.5\%$ of full scale
- Capacity 300mA, 300W, 99hr 59min (count up or count down)
- Four sets of recessed output connectors for running multiple gels
- Overcurrent protection
- Automatic shutdown of DC power on disconnect
- Operating temperature range: 0 to 30 °C
- Dimensions: 7.5 × 32 × 28 cm (H × W × D)



Power Supply, 250 Volt

110 V, US 3-pin plug **PS250-1** 1 each

Constant voltage operation mode
Digital display of mA or volts (selectable)
Dual output – run two gels at once at the same voltage (current requirements permitting)
Output: 20-250V selectable in 10V steps
Capacity: up to 300mA at 150-250V
up to 500mA below 150V
LED Fault Display for overcurrent and blown fuse. Audible overcurrent alarm.
Operating temperature range: 0 to 40 °C
H × W × D: 4½ in. × 8 in. × 5¼ in.



Power Supply, 250 Volt, Dual Mode

110 V, US 3-pin plug **PS251-1** 1 each

Ideal for use with polyacrylamide or agarose gel electrophoresis and blotting.

- Dual control modes (constant voltage or constant current) with automatic crossover
- Integral shutdown timer (0-24 hr)
- Reasonably priced

Quad output: four sets of recessed connectors
Integral timer: 0-24hrs
Automatic shutdown of DC power when last electrophoresis unit is disconnected.
Operating temperature, 0 - 30 °C
H × W × D: 14 cm × 22 cm × 19 cm
Output: 250 V, 500 mA \pm 9 mA



Electrophoresis, Power supply



Power Supply, 500 Volt, Dual Mode

110 V

PS500-1

Inquire

Ideal for use with polyacrylamide or agarose gel electrophoresis and blotting.

- Automatic shut-down of DC power when last electrophoresis unit is disconnected
- Jack for external timer control (timer optional; see Accessories)
- Dual control modes (constant voltage or constant current) with automatic crossover
- Reasonably priced

Output infinitely adjustable with 10-turn potentiometer

Digital display of both amps and volts

Quadruple output: run four gels at once at the same voltage (current requirements permitting)

AC Power On and DC Power On LED indicators

An optional timer control can be purchased separately

operating temperature, 0 - 30 °C

H x W x D: 8 in. x 13³/₄ in. x 10³/₄ in.

Output: 0-250 V, up to 2.5 A

Output: 250-500 V, up to 1.25 A

Power Supply Accessory

Power leads

P 8674

1 set

Set consists of one black and one red lead, each with one male and one female banana plug connector.

Timer

T 6906

1 each

0-24 hr countdown timer automatically

shuts down 500V power supply and sounds audible alarm when timer reaches 0:00.

Can also be used as a pocket timer for audible alarm. Battery operated.



Programmable Power Supply

Ideal for use with high voltage applications including IEF and DNA sequencing, but is also suitable for methods requiring less power (polyacrylamide or agarose gel electrophoresis and blotting)

- Programmable can store up to 20 different 10 step programs
- Constant voltage, constant current, and constant power modes with auto crossover
- Capacity 300mA, 300W
- Integral shutdown timer (0-100 hr, count up or count down)
- Integrator capacity 999,999V-hr, 99,999mA-hr, 99,999W-hr
- Four sets of recessed output connectors
- Automatic shutdown on disconnect of last gel unit
- Operating temperature range: 0 to 30 °C

H x W x D: 14 cm x 22 cm x 19 cm

Output (V)	AC	Cat. No.
2000	60 Hz, 110 V US 3-pin plug	PS2010-1
3000	60 Hz, 110 V US 3-pin plug	PS3010-1
4000 (programmable)	60 Hz, 110 V US 3-pin plug	PS4010-1

Sequencing

ABI DNA Sequencing Unit Accessories

Sigma offers glass plates, Mylar combs, and spacers designed specifically to meet the rigid specifications of the ABI® 373 and 377 DNA sequencing units. Notched glass plates are beveled for easy handling; well-to-read (WTR) distances as well as overall dimensions are given. Combs have printed well numbers and center marks. Glass plates can be purchased individually or in sets.

Special features of Step Plates:

- Front plate is beveled to create a thicker gel in the comb area, giving enough sample capacity for 96 lanes
- Gel casting is standard, but uses a 0.4 mm casting comb and sharktooth comb

Special features of Microtrough 96 plates:

- Microtroughs notched inside the front plate provide enough sample capacity for 96 lanes
- A special Mylar plug instead of a standard casting comb
- Microtroughs provide greater loading area and guide your pipette tops for more accurate sample placement, eliminating the need for expensive loaders or specialized tips

W × H(in.)	WTR, T(cm)	Cat. No.	Pkg
10 × 16 ¹⁷ / ₃₂	36	Z37,690-6	1
Notched Glass Plate For 377 Standard			
10 × 16 ¹⁷ / ₃₂	36	Z37,772-4	1
Glass Back Plate For 377 Standard			
10 × 16 ¹⁷ / ₃₂	36	Z37,792-9	1 set
Glass Plate Set For 377 Standard; notched plate + back plate, Set of 1 ea			
-	36	M 1308	1
Microtrough Plate For 377 Standard Microtrough front plate 96 well glass			
10 × 16 ¹⁷ / ₃₂	36	M 1058	1 set
Microtrough Plate Set For 377 Standard; Microtrough plate + back plate, Set of 1 ea			
-	36	G 8914	1
Step Plate For 377 Standard			
10 × 16 ¹⁷ / ₃₂	36	G 2540	1 set
Step Plate Set For 377 Standard; Step plate + back plate, Set of 1 ea			
10 × 21 ¹ / ₄	48	Z37,770-8	1
Notched Glass Plate For 377 Stretch			
10 × 21 ¹ / ₄	48	Z37,771-6	1
Glass Back Plate For 377 Stretch			
10 × 21 ¹ / ₄	48	Z37,793-7	1 set
Glass Plate Set For 377 Stretch; notched plate + back plate, Set of 1 ea			
-	48	M 1183	1
Microtrough Plate For 377 Stretch			
10 × 21 ¹ / ₄	48	M 0933	1 set
Microtrough Plate Set For 377 Stretch; Microtrough plate + back plate, Set of 1 ea			
-	48	G 9039	/1
Step Plate For 377 Stretch glass front Step plate for 96 lanes			
10 × 21 ¹ / ₄	48	G 2665	1 set
Step Plate Set For 377 Stretch; Step plate + back plate, Set of 1 ea			
10 × 16 ³ / ₄	34	Z37,853-4	1
Notched Glass Plate For 373 Standard			
10 × 16 ³ / ₄	34	Z37,854-2	11
Glass Back Plate for 373 Standard			
10 × 16 ³ / ₄	34	Z37,852-6	1 set

Electrophoresis, Sequencing

W × H(in.)	WTR, T(cm)	Cat. No.	Pkg
Glass Plate Set For 373 Standard; notched plate + back plate, Set of 1 ea			
-	0.2 mm × 1 well	Z37,795-3	1
Casting Comb			
-	0.2 mm × 36 wells	Z37,781-3	1
Sharktooth Comb			
-	0.2 mm × 48 wells	Z37,779-1	1
Sharktooth Comb			
-	0.2 mm × 64 wells	Z37,780-5	1
Sharktooth Comb			
-	0.2 mm × 96 wells	C 8724	1
Sharktooth Comb; For Microtrough 96 lane glass plates			
-	-	P 7731	1
Mylar Plug 0.2 mm; For use with Microtrough 96 lane plate sets			
-	0.3 mm × 1 well	Z37,778-3	1
Casting Comb			
-	0.3 mm × 48 wells	Z37,776-7	1
Sharktooth Comb			
-	0.3 mm × 64 wells	Z37,777-5	1
Sharktooth Comb			
-	0.2 mm × 16 ¹⁷ / ₃₂ in.	Z37,774-0	1 set
Spacer Set			
-	0.3 mm × 16 ¹⁷ / ₃₂ in.	Z37,773-2	1 set
Spacer Set			
-	0.2 mm × 21 ¹ / ₄ in.	Z37,775-9	1 set
Spacer Set			
-	0.3 mm × 21 ¹ / ₄ in.	Z37,796-1	1 set
Spacer Set			
-	0.3 mm × 23 ¹ / ₄ in.	Z38,265-5	1 set
Spacer Set			
-	0.4 mm × 96 wells	C 1851	1
Sharktooth Comb; For Step Plate 96 lane glass plates			
-	0.4 mm × 1 well	C 4226	1
Casting Comb; For Step Plate 96 lane glass plates			
-	-	M 0309	1
Microtrough glass front plate for 48 wtr, 48 cm			
-	-	M 0559	1 set
Microtrough glass plate set for 48 wtr, 36cm			
-	-	M 0684	1 set
Microtrough glass plate set for 48 cm wtr length			
-	-	M 0809	1
Plug for Microtrough glass plate sets 48 wtr			
-	-	M 0934	1
Microtrough glass front plate for 48 wtr, 36 cm			
10 × 23 ³ / ₈	48	Z37,768-6	1
Notched Glass Plate for 373 Stretch			
10 × 23 ³ / ₈	48	Z37,769-4	1
Glass Back Plate For 373 Stretch			
10 × 23 ³ / ₈	48	Z37,794-5	1 set
Glass Plate Set For 373 Stretch; notched plate + back plate, Set of 1 ea			

Base Runner Nucleic Acid Sequencing Units

These sequencers offer next-generation technology, with features that allow faster set-up and greater flexibility than conventional units.

Summary of features:

- Adjustable height and selection of accessories for running 30cm, 45cm, or 60cm gels; resolve more than 400 bases per run!
- Patented glass-aluminum-glass laminated Thermocore™ backing plate efficiently distributes heat, reducing thermal artifacts.
- Upper and lower buffer chambers are removable for convenient disposal of buffer; safety covers protect against electrical hazard
- Spring clamp system and silicone gasket for clean, leak-free set-up
- Recessed pure platinum electrodes for long life.



Base Runner 200 dual-gel unit Z35,490-2 1 each

Unique rotating base permits access to both gels and locks in place for loading. Includes two sets of buffer reservoirs, two sets of 60 cm glass plates, a complete 0.4 mm × 60 cm comb/spacer set, and two sets of power leads.

Base Runner 100 single-gel unit Z35,491-0 1 each

Unit includes one upper and one lower buffer reservoir, one Thermocore and one outer glass plate (60 cm), half of a 0.4 mm × 60 cm comb/spacer set (two 32-well conventional combs, one 32-well and one 48-well sharktooth combs, and four side spacers), and one set of power leads.

Base Runner Sequencing Unit Accessory

Description	wedge	Cat. No.	Pkg
Comb	0.2 mm × 32 rectangular wells	Z35,460-0	2
Comb	0.4 mm × 32 rectangular wells	Z35,465-1	2
Comb	0.4 mm × 48 sharktooth wells	Z35,467-8	2
Comb	0.2 mm × 32 rectangular wells	Z35,468-6	2
Comb	0.2 mm × 48 sharktooth wells	Z35,469-4	2
Comb	0.4 mm × 32 rectangular wells	Z35,492-9	2
Comb/spacer set Includes four 32-rectangular-well combs, two 32-well and two 48-well sharktooth combs, eight side spacers, and four bottom spacers.	0.4 mm	Z35,463-5	1 set
Comb/spacer set Includes four 32-rectangular-well combs, two 32-well and two 48-well sharktooth combs, eight side spacers, and four bottom spacers.	0.2 mm	Z35,464-3	1 set
Spacer set (4 side, 2 bottom)	0.4 mm × 60 cm	Z35,461-9	1 set
Spacer set (4 side, 2 bottom)	0.2 mm × 60 cm	Z35,462-7	1 set
Spacers	0.2-0.8 mm × 60 cm	Z35,470-8	2
Spacers	0.4-0.8 mm × 60 cm	Z35,471-6	2
Spacers	0.2-0.8 mm × 45 cm	Z35,472-4	2
Spacers	0.4-0.8 mm × 45 cm	Z35,473-2	2
Outer glass plate	45 cm	Z35,477-5	1
Outer glass plate	30 cm	Z35,478-3	1
Outer glass plate	60 cm	Z35,493-7	1
Power leads	-	Z35,496-1	1 set
Thermocore plate	45 cm	Z35,474-0	1
Thermocore plate	30 cm	Z35,475-9	1
Thermocore plate	60 cm	Z35,476-7	1
Lower reservoir	-	Z35,495-3	1
Upper reservoir	-	Z35,494-5	1

Bar Clamp

Replaces bulldog spring clamps for attaching the gel sandwich to the upper reservoir. Gives even compression over entire width of gel, eliminating capillary leakage between samples and reducing glass plate fractures. Clamp is included with fixed-height units, but is optional with adjustable-height units.

for 20 cm wide sequencing unit	Z35,444-9	1 each
for 33 cm wide sequencing unit	Z35,445-7	1 each
for 16.5 cm wide vertical slab gel unit	Z35,446-5	1 each

Nucleic Acid Sequencing Unit, IBI Model STS-45

Classic design has made this thermoplate **Z35,561-5** 1 each sequencer the standard since its introduction in 1983.

Features:

- Built-in epoxy-coated aluminum thermoplate distributes heat evenly, eliminating thermal artifacts, and creates no electrical hazard
- Larger than standard gel size (35 × 42.5cm) takes better advantage of 14 × 17 inch autoradiography films and gel dryers
- Accessories provide up to 96-sample capacity – generate up to 6 kb of sequence data from one gel
- Built-in spring-loaded clamps provide just enough pressure to prevent leaks without causing breakage of glass plates
- High-speed reservoir drains and new hand holds make unit among the most user-friendly

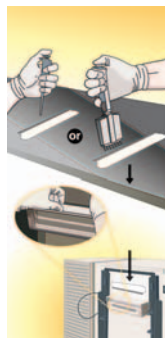
Unit comes complete with a 0.4mm comb/spacer set (two 32-well and two 64-well rectangular combs, two 64-well sharktooth combs, spacers and spacer tabs) and power leads.



STS-45 Nucleic Acid Sequencing Unit Accessories

Comb, 0.2 mm × 32 rectangular wells	Z35,562-3	2 each
Comb, 0.2 mm × 64 rectangular wells	Z35,563-1	2 each
Comb, 0.2 mm × 96 sharktooth wells	Z35,569-0	2 each
Comb, 0.4 mm × 32 rectangular wells	Z35,565-8	2 each
Comb, 0.4 mm × 64 rectangular wells	Z35,566-6	2 each
Comb, 0.4 mm × 64 sharktooth wells	Z35,568-2	2 each
Comb, 0.4 mm × 96 sharktooth wells	Z35,571-2	2 each
Sharktooth Comb Set, 0.2 mm	Z35,570-4	1 set
Sharktooth Comb Set, 0.4 mm	Z35,572-0	1 set
Comb and Spacer Set, 0.2 mm	Z35,574-7	1 set
Comb and Spacer Set, 0.4 mm	Z35,576-3	1 set
Spacer Set, 0.2 mm	Z35,573-9	1 set
Spacer Set, 0.4 mm	Z35,575-5	1 set
Spacer Set, linear wedge 0.2-0.8 mm	Z35,577-1	1 set
Spacer Set, linear wedge 0.4-0.8 mm	Z35,579-8	1 set
Inner Glass Plate	Z35,582-8	1 each
Outer glass plate	Z35,583-6	1 each
Glass Plate Set (one inner, one outer)	Z35,584-4	1 set
Gasket Set (gasket with four tabs)	Z35,585-2	1 set
Power leads	Z35,580-1	1 set

Electrophoresis, Sequencing



Quick-Comb™-96

QuickComb-96 is a sturdy and reliable porous membrane comb that allows for easy bench-top loading of sequencing reactions.

C 3226 2 each
 10 each
 50 each

The reactions are spotted on individual teeth (up to 0.5 μ l), the comb is inserted into the gel wells and current is applied. Samples are drawn from the porous teeth resulting in maximum signal strength and easier, more consistent lane tracking.

- Bench-top loading eliminates the need for expensive syringe loaders and reduces user fatigue
- Increased data quality when compared to standard loading protocols
- Superior lane tracking capabilities
- No well to well leaching or loss in signal strength
- Spot and use your comb immediately or store spotted samples up to 6 months with no compromise in data quality
- Compatible with ABI Prism® 377 standard or beveled "step-glass" plates
- Laminated to avoid tearing and bending while inserting the comb



SequeSoap Glass Plate Cleaner

Removes contaminants from glass plates used in nucleic acid sequencing. Strips away residues of glass coating agents that can build up and interfere with optimal separations. Compatible with hand and machine washing. A 2% solution is recommended as a starting concentration (somewhat less for machine washing to control foaming). Phosphate-free and biodegradable.

Z37,926-3 240 mL

SequeStrip Glass Plate Cleaner

Regenerates the surface of glass electrophoresis plates by removing dirt and minor imperfections and scratches. Plates should then be washed with SequeSoap.

Z38,065-2 1 each

Vertical



Dual Plate Vertical Electrophoresis Unit

This Vertical Unit can run two gels, for the separation of nucleic acids or proteins. It utilizes the large buffer volume in the bottom tank to act as a coolant. The running buffer can be pre-chilled prior to electrophoresis or additional cooling can be achieved by utilizing a bottom cooling block, which has hose connectors, allowing the connection of the unit to a circulating water bath or tap. Cooled gels can be run faster than conventional gels, minimizing heat induced lane distortions, and are ideal for native protein separations as well as SDS-Protein and DNA applications requiring temperature control. Gels can be cast directly on the inner gel running module using the casting base. The gel running frame connects the gels directly to the top buffer tank. A guaranteed leak-proof seal is obtained using simple clamping bars and screws. Plates 205 mm x 200 mm, usable gel size 165 mm x 175 mm

Description	Size (mm)	pkg of	Cat. No.	Pkg
Unit set	-	-	Z33,985-7	1 set
Standard Gel Running Module	-	-	Z33,997-0	
Replacement Silicone Gasket	-	-	Z33,996-2	
For standard vertical gel running module; For standard vertical gel running module				
Casting Base	-	-	Z33,998-9	
For standard vertical unit; For standard vertical unit				
Replacement Silicone Seals	-	2	Z33,999-7	
For standard vertical casting base; For standard vertical casting base				
Notched Glass Plates	205 × 200	2	Z33,986-5	
For standard vertical unit; For standard vertical unit				
Plain Glass Plates	205 × 200	2	Z33,987-3	
For standard vertical unit; For standard vertical unit				
Acrylic Dummy Plate	205 × 200	-	Z33,988-1	
For running standard vertical unit in single-gel mode; For running standard vertical unit in single-gel mode				
Comb	0.75 mm × 10 wells	-	Z34,007-3	
Comb	0.75 mm × 18 wells	-	Z34,008-1	
Comb	0.75 mm × 24 wells	-	Z34,010-3	
Comb	0.75 mm × 36 wells	-	Z34,011-1	
Comb	0.75 mm × 48 wells	-	Z34,013-8	
Comb	1.0 mm × 10 wells	-	Z34,014-6	
Comb	1.0 mm × 18 wells	-	Z34,015-4	
Comb	1.0 mm × 24 wells	-	Z34,016-2	
Comb	1.0 mm × 36 wells	-	Z34,017-0	
Comb	1.0 mm × 48 wells	-	Z34,018-9	
Comb	1.5 mm × 10 wells	-	Z34,019-7	
Comb	1.5 mm × 18 wells	-	Z34,020-0	
Comb	1.5 mm × 24 wells	-	Z34,021-9	
Comb	1.5 mm × 36 wells	-	Z34,022-7	
Comb	1.5 mm × 48 wells	-	Z34,023-5	
Comb	2.0 mm × 10 wells	-	Z34,024-3	
Comb	2.0 mm × 18 wells	-	Z34,025-1	
Comb	2.0 mm × 24 wells	-	Z34,027-8	
Comb	2.0 mm × 36 wells	-	Z34,028-6	

Electrophoresis, Vertical

Description	Size (mm)	pkg of	Cat. No.	Pkg
Comb	2.0 mm × 48 wells	-	Z34,029-4	
Comb	3.0 mm × 10 wells	-	Z34,030-8	
Comb	3.0 mm × 18 wells	-	Z34,031-6	
Comb	3.0 mm × 24 wells	-	Z34,032-4	
Comb	3.0 mm × 36 wells	-	Z34,033-2	
Comb	3.0 mm × 48 wells	-	Z34,034-0	

NEW Spacers for Vertical Gel Electrophoresis Unit

W × L(mm)	T(mm)	Cat. No.	Pkg/1 set
For mini-vertical unit			
12 × 103	0.75	Z33,963-6	
	1.0	Z33,964-4	
	2.0	Z33,966-0	
For standard vertical unit			
20 × 200	0.75	Z33,990-3	
	1.0	Z33,991-1	
	1.5	Z33,993-8	
	2.0	Z33,994-6	
	3.0	Z33,995-4	

Replacement Cams for Casting Base

Fits both mini and standard size units **Z33,971-7** 1 pkg
Pkg of 2



Sigma 2-D Electrophoresis Set

Based on a 10-tube gel-running module for capillary electrophoresis using the same tank and lid as the Sigma Mini Vertical Gel Electrophoresis set described previously. Uses thick wall (7 mm o.d.) capillary tubes, 80 mm long. Internal tube diameter 1.0 mm. Blanking stoppers fill spaces in module if fewer than 10 tube gels are to be run. Completed gels may be blown out of capillary tubes using syringe and rubber tubing, syringe and pipette tip or pushed out of tube with metal rod. Extraction platform useful to catch extracted gel and manipulate before placing on slab gel.

Select from three options:

1. a complete system with all parts needed to run 80 mm capillary tube gels, followed by vertical gels
2. a capillary system for running 80 mm capillary tubes, for subsequent vertical gel electrophoresis in a Sigma Mini Vertical Gel unit or any other vertical unit with sufficient width gels to accept the tube gel
3. individual components for running capillary tube gels in a Sigma Mini Vertical Gel Electrophoresis tank

Complete Set	Z34,000-6	1 each
10 Tube Capillary set	Z34,001-4	1 set
Tube Gel Running Module	Z34,002-2	1 each
Capillary Tubes	Z34,003-0	1 pkg

I.D.: 1.0 mm
O.D. × L: 7 mm × 80 mm
pack of 10 tubes

Blanking stoppers	Z34,004-9	1 pkg
Extraction Platform	Z34,005-7	1 each
Comb	Z34,006-5	1 each
Sample slot + reference well Thickness: 1.5 mm		
Spacer Set	Z33,965-2	1 set
Spacer set Size: 1.5 mm		

Casting Clamps

Specifically designed for gel casting. Wide jaws provide uniform pressure on glass plate-gasket assembly. Single- and dual-gel casting clamps accommodate different thicknesses and are not interchangeable.

Set of three (3). One set (three clamps) is sufficient for 10 cm wide mini-gels; two sets (six clamps) are necessary for standard 16.5 cm wide gels. Nylon.

Large capacity multi-task	C 2726	2 each
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Multi-task clamp; rotating arms can be folded in either direction. Useful for clamping over the glass plate notch during gel casting and during the loading of sharktooth comb samples.

For dual-gel casting assembly	C 3926	1 set
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For single-gel casting assembly	C 4176	1 set
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Fixed Height, Dual Gel Vertical Units

- Made from high quality acrylic with platinum electrodes
- Long lasting silicone sponge gasket on upper reservoir for leak-free operation without grease
- Safety covers with attached safety-tip power leads
- Designed for use with unique gel-casting gasket; heavy-duty casting clamps compress gasket between glass plates, sealing without grease

For Slab Gel Electrophoresis:

- Designed to use as little as 200 ml of buffer, and as little as 5 µg of sample per well
- Use with gel casting accessories which offer the ability to cast one or two gels in a single assembly
- Use in standard slab gel electrophoresis or in the second dimension of 2D electrophoresis

For Tube Gel Electrophoresis

- Only the two fixed-height dual-gel units accept tube gel accessories
- Tubes in four different inside diameters all have the same outside diameter so they are interchangeable in the tube gel adapter
- Two-sided operation allows up to 20 tubes to be run at a time

Each unit comes with base unit, upper and lower reservoirs with safety covers and attached power leads, and two gel-mounting spring clamps.

CE-APPROVED ONLY WHERE INDICATED

Slab and tube gel accessories are not included; order from the accessories list

Dual mini	E 5889	1 each
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W × H: 10 cm × 8 cm

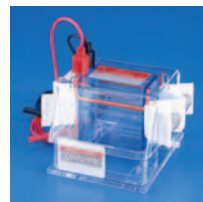
Dual mini	Z37,240-4	1 each
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Accepts 10 x 10 cm precast gels

W × H: 11.3 cm × 10 cm

Dual standard	E 4266	1 each
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W × H: 16.5 cm × 19 cm



Electrophoresis, Vertical



Fixed Height, Single Gel Vertical Units

- Made from high quality acrylic with platinum electrodes
- Long lasting silicone sponge gasket on upper reservoir for leak-free operation without grease
- Safety covers with attached safety-tip power leads
- Designed for use with unique gel-casting gasket; heavy-duty casting clamps compress gasket between glass ptes, sealing without grease

For Slab Gel Electrophoresis:

- Designed to use as little as 200ml of buffer, and as little as 5µg of sample per well
- Use with gel casting accessories which offer the ability to cast one or two gels in a single assembly
- Use in standard slab gel electrophoresis or in the second dimension of 2D electrophoresis

For Tube Gel Electrophoresis

- Only the two fixed-height dual-gel units accept tube gel accessories
- Tubes in four different inside diameters all have the same outside diameter so they are interchangeable in the tube gel adapter
- Two-sided operation allows up to 20tubes to be run at a time

Each unit comes with base unit, upper and lower reservoirs with safety covers and attached power leads, and two gel-mounting spring clamps.

CE-APPROVED ONLY WHERE INDICATED

Slab and tube gel accessories are not included; order from the accessories list

	gel, W × H(cm)	Cat. No.
	10 × 8	Z37,302-8
Mini		
	11.3 × 10	Z37,239-0
Mini; Accepts 10 x 10 cm precast gels		
	16.5 × 14.5	Z35,277-2
	16.5 × 14.5	Z37,503-9
CE-approved		
	16.5 × 22	Z35,278-0
	16.5 × 22	Z37,504-7
CE-approved		
	16.5 × 28	Z35,279-9
	16.5 × 28	Z37,505-5
CE-approved		



Adjustable Height, Dual Gel Vertical Unit

- Made from high quality acrylic with platinum electrodes
- Long lasting silicone sponge gasket on upper reservoir for leak-free operation without grease
- Safety covers with attached safety-tip power leads
- Designed for use with unique gel-casting gasket; heavy-duty casting clamps compress gasket between glass plates, sealing without grease

For Slab Gel Electrophoresis:

- Designed to use as little as 200ml of buffer, and as little as 5µg of sample per well
- Use with gel casting accessories which offer the ability to cast one or two gels in a single assembly
- Use in standard slab gel electrophoresis or in the second dimension of 2D electrophoresis

Each unit comes with base unit, upper and lower reservoirs with safety covers and attached power leads, and two gel-mounting spring clamps.

CE-APPROVED ONLY WHERE INDICATED

Slab and tube gel accessories are not included; order from the accessories list

Gel W 16.5 cm × H 14.5-28 cm, **Z37,507-1** 1 each
CE-approved

Gel W 16.5 cm × H 14.5-28 cm **Z35,280-2** 1 each
 Not CE approved

Adjustable Height, Single Gel Vertical Unit

- Made from high quality acrylic with platinum electrodes
- Long lasting silicone sponge gasket on upper reservoir for leak-free operation without grease
- Safety covers with attached safety-tip power leads
- Designed for use with unique gel-casting gasket; heavy-duty casting clamps compress gasket between glass plates, sealing without grease

For Slab Gel Electrophoresis:

- Designed to use as little as 200ml of buffer, and as little as 5µg of sample per well
- Use with gel casting accessories which offer the ability to cast one or two gels in a single assembly
- Use in standard slab gel electrophoresis or in the second dimension of 2D electrophoresis

Each unit comes with base unit, upper and lower reservoirs with safety covers and attached power leads, and two gel-mounting spring clamps.

CE-APPROVED ONLY WHERE INDICATED

Slab and tube gel accessories are not included; order from the accessories list

Gel W 16.5 cm × H 14.5-28 cm **E 5514** 1 each

Gel W 16.5 cm × H 14.5-28 cm, **Z37,506-3** 1 each
CE-approved

Mini-Gel MultiGel Caster

A 10-gel box system for casting 105 × 100mm gels to use in the Sigma Mini-vertical gel electrophoresis unit. Includes 10 separation sheets, 10 spacer aligners, and a silicone rubber gasket.

Complete unit **Z34,035-9** 1 each

Separation sheets **Z34,036-7** 1 pkg

Size: 1 mm

Pkg of 2

Spacer Aligners **Z34,037-5** 1 pkg

Pkg of 2

Silicone Rubber Gasket **Z34,038-3** 1 each

Multiple Mini-Gel Casting Chambers

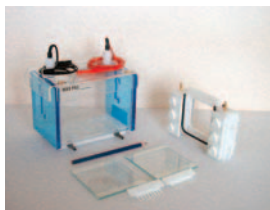
Cast multiple gels simultaneously. Central filling trough in bottom of chamber connects to a back fill port and assures even casting for single percentage or gradient gels. A silicone gasket, stainless steel spring clamps, and mylar shim sheets are included.

Holds four 10 × 8 cm gels **Z35,281-0** 1 each

Holds ten 10 × 8 cm gels **Z35,282-9** 1 each



Electrophoresis, Vertical



Mini Vertical Electrophoresis Unit

- High quality acrylic construction with replaceable platinum electrode wires
 - Safety lid has integral shrouded power leads with corrosion-resistant gold-plated terminals
 - All dual-gel models for higher throughput
 - Casting base (included) uses cams and silicone rubber pads to hold fully assembled running module and two gel sandwiches in perfect alignment. After gel sets, remove entire assembly and place in tank.
 - Running module holds gels with easy-to-use plate-clamping bars and screws
 - Wide range of matching combs and spacers
- Each unit comes with tank and lid, power leads and connectors, dual-gel running module, casting base, four sets of glass plates, one acrylic dummy plate (for running in single-gel mode), two sample combs, two spacer sets, and two spacer aligners. All components are available separately

Plates 105 mm x 100 mm, usable gel size 80 mm x 85 mm

The cooling block version has hose connectors for tap water or coolant from a circulating water bath. Cooled gels can be run faster than conventional gels, minimizing heat induced lane distortions, and are ideal for native protein separations as well as SDS-Protein and DNA applications requiring temperature control.

Description	Size (mm)	pkg of	Cat. No.
Set without cooling block Included are 1.0 mm x 10 sample combs and matching spacers (two sets).	-	-	Z33,956-3
Set with Cooling block Included are 1.0 mm x 10 sample combs and matching spacers (two sets).	-	-	Z33,957-1
Notched Glass Plates	105 x 100	2	Z33,959-8
Plain Glass Plates	105 x 100	2	Z33,960-1
Casting Base	-	-	Z33,969-5
Replacement Silicone Seals For mini-vertical casting base	-	2	Z33,970-9
Gel Running Module	-	-	Z33,968-7
Replacement Silicone Gasket For mini-vertical gel running module	-	-	Z33,967-9
Acrylic Dummy Plate For running mini-vertical unit in single-gel mode	105 x 100	-	Z33,962-8
Comb	0.75 mm x 10 wells	-	Z33,972-5
Comb	0.75 mm x 12 wells	-	Z33,973-3
Comb	0.75 mm x 16 wells	-	Z33,974-1
Comb	1.0 mm x 10 wells	-	Z33,976-8
Comb	1.0 mm x 12 wells	-	Z33,977-6
Comb	1.0 mm x 16 wells	-	Z33,978-4
Comb	1.5 mm x 10 wells	-	Z33,979-2
Comb	1.5 mm x 12 wells	-	Z33,980-6
Comb	1.5 mm x 16 wells	-	Z33,981-4
Comb	2.0 mm x 10 wells	-	Z33,982-2
Comb	2.0 mm x 12 wells	-	Z33,983-0
Comb	2.0 mm x 16 wells	-	Z33,984-9

Combs for Vertical Mini-gel, 10 cm Wide

Size	Cat. No.
0.5 mm × 1 well	C 1559
0.5 mm × 1 well	C 2434
1.0 mm × 1 well	C 2559
1.5 mm × 1 well	C 2684
0.75 mm × 10 wells	C 4301
0.75 mm × 14 wells	C 4426
1.0 mm × 10 wells	C 4551
1.0 mm × 14 wells	C 4676
1.5 mm × 10 wells	C 4701
1.5 mm × 14 wells	C 4826

Combs for Vertical Mini-Gel, 11.3 cm wide

The following components are necessary to construct one complete single gel casting assembly: one set of glass plates, one set of spacers, one gasket, one comb, and gel casting clamps (one set of three for mini-size gel; two sets of three for standard size gels). Be sure to select the same length glass plates, spacers and gaskets; the same thickness spacers, cob and gasket.

For dual gel casting, order two of each component, but substitute dual gel casting clamps for the single gel casting clamps. For the second dimension of 2D electrophoresis, spacers, gaskets and a "1-well" comb must match the thickness of the first dimension tube gel.

Size	Cat. No.
0.5 mm × 1 well	Z37,241-2
0.5 mm × 3 wells	Z37,242-0
0.5 mm × 2 wells (plus marker lane)	Z37,243-9
0.5 mm × 7 wells	Z37,244-7
0.5 mm × 10 wells	Z37,245-5
0.5 mm × 14 wells	Z37,246-3
0.75 mm × 1 well	Z37,247-1
0.75 mm × 3 wells	Z37,249-8
0.75 mm × 2 wells (plus marker lane)	Z37,250-1
0.75 mm × 7 wells	Z37,252-8
0.75 mm × 10 wells	Z37,253-6
0.75 mm × 14 wells	Z37,254-4
1.0 mm × 1 well	Z37,255-2
1.0 mm × 3 wells	Z37,256-0
1.0 mm × 2 wells (plus marker lane)	Z37,257-9
1.0 mm × 7 wells	Z37,258-7
1.0 mm × 10 wells	Z37,259-5
1.0 mm × 14 wells	Z37,260-9
1.5 mm × 1 well	Z37,261-7
1.5 mm × 3 wells	Z37,262-5
1.5 mm × 2 wells (plus marker lane)	Z37,263-3
1.5 mm × 7 wells	Z37,264-1
1.5 mm × 10 wells	Z37,266-8

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Electrophoresis, Vertical

Size	Cat. No.
1.5 mm × 14 wells	Z37,267-6
2.0 mm × 1 well	Z37,268-4
2.0 mm × 3 wells	Z37,269-2
2.0 mm × 2 wells (plus marker lane)	Z37,270-6
2.0 mm × 7 wells	Z37,271-4
2.0 mm × 10 wells	Z37,272-2
2.0 mm × 14 wells	Z37,273-0
3.0 mm × 1 well	Z37,274-9
3.0 mm × 3 wells	Z37,275-7
3.0 mm × 2 wells (plus marker lane)	Z37,276-5
3.0 mm × 7 wells	Z37,277-3
3.0 mm × 10 wells	Z37,278-1
3.0 mm × 14 wells	Z37,280-3

Gaskets for Vertical Mini Gel 10 cm Wide

Unique gasket provides continuous seal around sides and bottom of glass plates, eliminating the need for a bottom spacer. Gasket thickness must match comb and spacers. Length of gasket material is approx. 26 cm (2 × h + w). Gaskets are color-coded for easy identification.

Silicone rubber.

0.5 mm × 8 cm, color-coded yellow	G 6528	1 each
0.75 mm × 8 cm, color-coded yellow	G 2650	1 each
1 mm × 8 cm, color-coded red	G 2775	1 each
1.5 mm × 8 cm, color-coded blue	G 2900	1 each

Glass Plates for Vertical Mini Gel, 10 cm Wide

Set includes one rectangular plate with rounded bottom corners and one notched plate.

Size: 8 cm × 10 cm

Frosted Offers better support for agarose gels.	G 3025	1 set
Clear For polyacrylamide gels.	G 3150	1 set

Glass Plates for Vertical Mini Gel, 11.3 cm Wide

W × H: 11.3 cm × 10 cm

Clear	Z37,294-3	1 set
Frosted	Z37,295-1	1 set

Spacers for Vertical Mini Gels, 10 cm Wide

Set includes two spacers. Rounded corner mates with gasket and bottom corners of rectangular glass plate. Gasket design eliminates the need for a bottom spacer.

Size: 0.5 mm × 8 cm	S 7028	1 set
Size: 0.75 mm × 8 cm	S 3900	1 set
Size: 1 mm × 8 cm	S 4025	1 set
Size: 1.5 mm × 8 cm	S 4150	1 set

Spacers for Vertical Mini Gels, 11.3 cm Wide

Size	Cat. No.	Pkg/1 set
0.5 mm × 10 cm	Z37,281-1	
0.75 mm × 10 cm	Z37,283-8	
1 mm × 10 cm	Z37,284-6	
1.5 mm × 10 cm	Z37,285-4	
2 mm × 10 cm	Z37,286-2	
3 mm × 10 cm	Z37,287-0	

Sharktooth Combs for 11.3 cm Wide Mini-Vertical Unit

Size	Cat. No.
0.5 mm × 13 wells	Z37,297-8
0.5 mm × 15 wells	Z37,298-6
0.5 mm × 19 wells	Z37,299-4
0.5 mm × 26 wells	Z37,300-1

Silicone Cord Replacement Repair Kit

Replaces the silicone sponge seal on the upper gel reservoir when it has been damaged or has lost its effectiveness with use. Includes all materials and instructions for replacement.

For mini-vertical electrophoresis units (10 cm gel width) **Z37,304-4** 1 each

For standard vertical electrophoresis units (16.5 cm gel and wider) **Z37,305-2** 1 each

Electrophoresis, Vertical

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www.sigma-aldrich.com/books**Combs for Standard Vertical Gels (16.5 cm width)**Machined match spacer thickness precisely.
Teflon.

Size	Cat. No.
0.5 mm × 1 well	C 1684
0.75 mm × 1 well	C 2809
1.0 mm × 1 well	C 2934
1.5 mm × 1 well	C 3059
0.75 mm × 10 wells	C 3425
0.75 mm × 12 wells	C 3550
0.75 mm × 14 wells	C 3675
0.75 mm × 16 wells	C 3800
0.75 mm × 20 wells	C 3925
1.0 mm × 10 wells	C 4050
1.0 mm × 12 wells	C 4175
1.0 mm × 14 wells	C 4300
1.0 mm × 15 wells	C 4425
1.0 mm × 16 wells	C 4550
1.0 mm × 20 wells	C 4675
1.0 mm × 30 wells	C 4800
1.5 mm × 2 wells (plus marker lane)	C 4925
1.5 mm × 3 wells	C 5050
1.5 mm × 10 wells	C 5175
1.5 mm × 12 wells	C 5300
1.5 mm × 14 wells	C 5425
1.5 mm × 15 wells	C 5550
1.5 mm × 16 wells	C 5675
1.5 mm × 20 wells	C 5800
1.5 mm × 30 wells	C 5925
2.0 mm × 14 wells	C 6050
2.0 mm × 16 wells	C 6175
2.0 mm × 20 wells	C 6300
3.0 mm × 3 wells	C 6425
3.0 mm × 2 wells (plus marker lane)	C 6550
3.0 mm × 10 wells	C 6675
3.0 mm × 12 wells	C 6800
3.0 mm × 14 wells	C 6925

Gaskets for Vertical Standard Gels, 11.3 cm Wide

Size	color-coded	Cat. No.
0.5 mm × 10 cm	yellow	Z37,288-9
0.75 mm × 10 cm	yellow	Z37,289-7
1 mm × 10 cm	red	Z37,290-0
1.5 mm × 14.5 cm	blue	Z37,291-9
2 mm × 10 cm	purple	Z37,292-7
3 mm × 10 cm	white	Z37,293-5

Gaskets for Vertical Standard Gels, 16.5 cm Wide

Unique silicone rubber gasket provides continuous seal around sides and bottom of glass plates, eliminating the need for a bottom spacer. Order gasket thickness to match comb and spacers. Gaskets are color-coded by thickness for easy identification. Length given is height of assembly; actual gasket length is $2 \times H + W$.

Size	color-coded	Cat. No.
0.5 mm × 19 cm	yellow	G 5653
0.75 mm × 14.5 cm	yellow	G 2400
0.75 mm × 19 cm	yellow	G 6653
0.75 mm × 22 cm	yellow	G 3275
0.75 mm × 28 cm	yellow	G 3400
1.0 mm × 14.5 cm	red	G 3525
1.0 mm × 19 cm	red	G 6778
1.0 mm × 22 cm	red	G 3650
1.0 mm × 28 cm	red	G 3775
1.5 mm × 14.5 cm	blue	G 3900
1.5 mm × 19 cm	blue	G 6903
1.5 mm × 22 cm	blue	G 4025
1.5 mm × 28 cm	blue	G 4150
2.0 mm × 14.5 cm	purple	G 4275
2.0 mm × 22 cm	purple	G 4400
2.0 mm × 28 cm	purple	G 4525
3.0 mm × 14.5 cm	white	G 4650
3.0 mm × 22 cm	white	G 4775
3.0 mm × 28 cm	white	G 4900

Glass Plates for Vertical Standard Gel, 16.5 cm Wide

Set includes one rectangular plate with rounded bottom corners and one notched plate.

W × H(cm)	Cat. No.	Pkg/1 set
16.5 × 14.5	G 0901	
16.5 × 22	G 1026	
16.5 × 28	G 1151	
16.5 × 19	G 5778	

Electrophoresis, Vertical

Spacers for Vertical Standard Gel, 16.5 cm Wide

Set includes two spacers. Rounded corner mates with gasket and bottom corners of rectangular glass plate. Gasket design eliminates the need for a bottom spacer.

Size	Cat. No.	Pkg/1 set
0.5 mm × 19 cm	S 7528	
0.75 mm × 14.5 cm	S 5024	
0.75 mm × 19 cm	S 7153	
0.75 mm × 22 cm	S 5149	
0.75 mm × 28 cm	S 5274	
1.0 mm × 14.5 cm	S 5399	
1.0 mm × 19 cm	S 7278	
1.0 mm × 22 cm	S 5524	
1.0 mm × 28 cm	S 5649	
1.5 mm × 14.5 cm	S 5774	
1.5 mm × 19 cm	S 7403	
1.5 mm × 22 cm	S 5899	
1.5 mm × 28 cm	S 6024	
2.0 mm × 14.5 cm	S 6149	
2.0 mm × 22 cm	S 6274	
2.0 mm × 28 cm	S 6399	
3.0 mm × 14.5 cm	S 6524	
3.0 mm × 22 cm	S 6649	
3.0 mm × 28 cm	S 6774	

Adapter for Vertical Tube Gel

With replaceable grommets for all 3.0 mm O.D. glass tubes.

Capacity, 6 tubes **A 1564** 1 each
For use with dual mini electrophoresis unit
(10 x 8 cm)

Capacity, 10 tubes **A 1689** 1 each
For use with dual standard electrophoresis
unit (16.5 x 19 cm)

Safety Lid for Use with Tube Gel Adapter

Specifically for use with the tube gel adapter.

For dual mini electrophoresis unit **L 5526** 1 each

For dual electrophoresis unit **L 5651** 1 each

Extruder for Vertical Tube Gel

Adapter with Luer lock fitting at one end and a double O-ring compression fitting at the other. Uses air or liquid pressure from a syringe to extrude gels from tubes. **E 3892** 1 each

Glass Tubes for Tube Gels

Although the tubes listed below have different inside diameters, they all have the same 3.0 mm outside diameter. This makes the tubes less fragile and easier to handle.

The 7.5 cm tubes fit the mini electrophoresis unit, and the 13.5 cm tubes fit the standard-size unit.

I.D. × L	Cat. No.	Pkg/24
0.5 mm × 7.5 cm	T 4541	
0.5 mm × 13.5 cm	T 4666	
0.75 mm × 7.5 cm	T 5291	
0.75 mm × 13.5 cm	T 5666	
1.0 mm × 7.5 cm	T 5416	
1.0 mm × 13.5 cm	T 5791	
1.5 mm × 7.5 cm	T 5541	
1.5 mm × 13.5 cm	T 5916	

Grommets for Vertical Tube Gel

Use with glass tubes for both vertical **G 5903** 12 each electrophoresis units.

Silicone Stoppers for Tube Gel Adapter

To close unused positions in the tube gel **S 5653** 12 each adapter.

Visualization

Gel Documentation and Analysis System

Gel Documentation and analysis systems that includes:

- 2.1 megapixel resolution digital grayscale and color CCD camera with built-in 3X zoom optical lens with software control and autofocus capability
- On-chip integration for up to 15 seconds for faint band detection on fluorescent samples
- Interference filter for EtBr, SYBR[®] Green dyes, and colorimetric stains
- DarkHood Cabinet suitable for commonly manufactured UV transilluminators
- USB and Serial port cables and power supply 110V-230V autoswitching
- US power cable for 110V units
- AlphaDigiDoc software CD for image acquisition, enhancement, archiving, documentation, and analysis for M.W., 1D-multi, microplate, and 2D-spot densitometry, and object counting. Compatible with Windows 98 and Windows ME platforms

AlphaDigiDoc 1000, 110 V **A 5723** 1 each

AlphaDigiDoc 1000, 220 V **A 5848** 1 each

Electrophoresis, Visualization

Polaroid® GelCam Camera Accessories

Focal plane is flush with the end of the hood for flat-faced oscilloscope screens. Focal plane is recessed slightly inside the hood to compensate for typical gel thickness when hood rests on transilluminator.

L × W(in. / cm)	diag.(in.)	Cat. No.
Oscilloscope hood (flat face) with filter holder		
3.2 × 3.9 (8 × 10)	5	H 8518
4.1 × 4.7 (10.5 × 12)	6	H 8643
5.1 × 5½ (13 × 14)	7	H 8768
7½ × 10½ (19 × 26)	12	H 8893
Electrophoresis hood (flat face) with filter holder		
3.2 × 3.9 (8 × 10)	5	Z35,968-8
4.1 × 4.7 (10.5 × 12)	6	Z35,969-6
5.1 × 5½ (13 × 14)	7	Z35,971-8
7½ × 10½ (19 × 26.7)	13	Z35,972-6

Camera Stand

Attaches to Polaroid DS-34, CR-10, DS-31, **Z37,763-5** 1 each and DS-39 camera. Flash unit included.

Provides photos under any light conditions. Produce 1:1 (100%) copies of Polaroid photos or any flat area 3 × 3⅞ in.



Polaroid® GelCam® Camera System

The Polaroid GelCam Camera system is used to make instant photographic records from light-emitting sources such as light boxes, video screens or CRT screens.

Features include:

- Hand-held operation
- No focusing required
- Four element f4.5 glass lens
- Shutter speeds: 1/125 sec to 1 sec and Bulb
- Easily interchangeable hoods
- Pistol grip single-stroke shutter release
- Rugged construction
- Snap-on hoods of various sizes determine the photographic area.

Flat-faced hoods are used with flat video screens or light boxes. Contour-faced hoods are used with curved video screens. Each hood is fitted with a supplementary lens ensuring precise focus of the photographed subject.

Unit **GELCAM** 1 kit

A portable, self-contained unit for benchtop photography of electrophoresis gels.

Contains the following:

C0540 -Polaroid DS-34 Camera

Z35,971-8 -Flat Face Hood, 7 inch (diagonal)

Z60,474-7 - Gelcam Electrophoresis Filter Kit

Electrophoresis Filter Kit **Z60,474-7** 1 each

Camera only **C 0540** 1 each

For versatility, camera accepts a wide variety of Polaroid films for making 3¼×4¼ in. black-and-white or color prints, or black-and-white negatives. The exposed film packet is pulled from the camera to start development. After a set time, the packet is peeled to reveal the image. For use with Polaroid Type 611, 612, 665, 667, 668, and 669 films.

Polaroid MP-4+ Camera System

The Polaroid MP-4+ Camera System **MP-4P** 1 kit unparalleled versatility in photographic recording: gel documentation, copying, small object or specimen photography, photomicrography, photomacrography, close-up photography and off-stand photography. With the wide selection of instant films available, you can produce color or B&W prints (with or without negatives) or color transparencies. Accessories allow film formats from 35 mm to 8 x 10". Features of the MP-4+ system: black anodized column eliminates a source of reflection on glossy subjects; baseboard surface is neutral gray with 18% reflectance to minimize flare and provide a surface for pre-metering exposures; a drawer in the baseboard provides convenient storage of instructions, lenses, and filters; wiring harness for the lighting assemblies is attached to the baseboard and leveling feet at all four corners are built into the baseboard; a convenient, stick-on development timer is included with the column. A complete MP-4+ Camera System is available. It includes all components needed for photodocumentation of electrophoresis gels, except a transilluminator. To assemble a system for other applications, select components from the Table.

A versatile system which includes all of the most commonly used components for photodocumentation of electrophoresis gels (except a transilluminator):

- MP-CSP Column and camera body
- B 3407 Baseboard, 18 × 23 in
- C 3540 Sliding camera head
- F 8640 Film holder
- S 1770 Copal shutter
- G 7395 Ground glass
- R 6007 Reflex viewer and hood
- L 8019 135mm lens
- MP-4F Filter holder and color-correcting filters
- F 4638 Polaroid Type 667 film, 3 pkgs (60 total exposures)
- Wratten filters for ethidium bromide-stained gels:
 - F 9265 Wratten 2A filter
 - F 7272 Wratten 22 filter
- Wratten filter for Coomassie Blue-stained gels:
 - F 8390 Wratten 15 filter

Polaroid MP-4+ Parts and Accessories**Baseboard** **B 3407** 1 each

Surface is 18% reflectance neutral grey. Has wiring harness for lighting assembly attached and includes accessory storage drawer.

Size: 18 in. × 23 in.

Tungsten floodlight bulbs **B 3532** 1 set

110V, 150W. Set of four.

Sliding Camera head **C 3540** 1 each

Movable carriage that holds ground glass

(G 7395) and reflex viewer/hood (R 6007). Allows focusing without removal of film holder from camera.



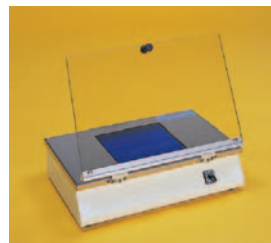
Electrophoresis, Visualization

Dark slide replacement For 3 1/4 x 4 1/4 in Film Holder	D 8413	1 each
Film holder For 3 1/4 x 4 1/4 in pack film	F 8640	1 each
Film holder For 4 x 5 in sheet film	F 8765	1 each
Ground glass focusing screen For general purpose photography with 3 1/4 x 4 1/4 and 4 x 5in film holders	G 7395	1 each
Standard light arms Arms with cross bars. Set of two.	L 6151	1 set
Lens 35mm Tominon 4-element, 3-group reverse Tessar-type macro For use of this lens with Sliding Camera Head, a macro Extension (M 7777) is advisable. f/: 4.5-32	L 7644	1 each
Lens 105 mm Tominon 4-element, 3-group Tessar-type all purpose; f/4.5 to f/32.	L 7894	1 each
Lens 135mm Tominon 4-element, 3-group Tessar-type all purpose; f/4.5 to f/32.	L 8019	1 each
Macro extension For sliding camera head to increase magni- fication range and working distance of camera. With the macro extension, lenses have magnification ranges as follows: 135mm (up to 3.0x); 105mm (up to 4.0x); 75mm (1.5x to 6.5x); 35mm (5x to 14.3x)	M 7777	1 each
Filter kit for Color-correcting for tungsten lamps Kit includes filter holder with two carriers, a 3 x 3 in filter frame, and three Wratten gelatin filters (80B, 80C, and 80D) to provide temperature correction for tungsten lamps when using Polaroid color films.	MP-4F	1 kit
Standard fixed column Includes camera body, with bellows and lens board to attach shutter (S 1770) and lens, carriage assembly, dust cover and development timer. overall H: 46 in. (116 cm)	MP-CSP	1 kit
Standard Lighting assembly Includes two light arms, four 110V tungsten bulbs, and four shields. Parts also available separately (below).	MPP-120	1 kit
Reflex viewer and hood Permits clear, eye-level viewing of ground- glass image.	R 6007	1 each
Standard Shields Lamp fixtures with wiring. Set of four.	S 1279	1 set
Self-locking Copal Shutter Shutter speeds of 1/125 to 1sec and "B"; "X" synchronization; previewing provision. Includes reduction kit for small film format, microscope baffle tube, reverse mounting ring and cable release. Reduction kit is generally used with 75mm lens when making small format slides.	S 1770	1 each

Transilluminator, UV

For visualization of ethidium bromide-stained nucleic acids and similar fluorescence detection systems.

- Single-band and dual-band units available. All include 312 nm (midrange UV) bulbs, which corresponds with the fluorescence excitation maximum of ethidium bromide. Fluorescence intensity is enhanced, while photobleaching and photoinactivation of stained nucleic acids are reduced. Dual band units also include 254 nm (shortwave UV) bulbs.
- Six 15 W or four 8 W bulbs illuminate the viewing area uniformly.
- Intensity selector: switch between 100% for reading/photographing gels and 70% for preparing/cutting gels.
- Cooling fan: helps prevent thermal damage to both the samples and the glass filter.
- Long life filter is highly resistant to solarization; unlimited life at 312 nm and above 3000 hr at 254 nm.
- Built-in hinged UV safety screen



Wavelength, 312 nm (only), 110 V, 60 Hz Z36,366-9 1 each

Viewing area area: 20 cm × 20 cm

Wavelength, 312 nm (only), 110 V, 60 Hz Z36,368-5 1 each

Viewing area area: 20 cm × 35 cm

Wavelength, 254 - 312 nm (selectable), 110 V, 60 Hz Z36,378-2 1 each

Viewing area area: 20 cm × 20 cm

Wavelength, 254 - 312 nm (selectable), 110 V, 60 Hz Z36,380-4 1 each

Viewing area area: 20 cm × 35 cm

Wavelength, 312 nm, Compact Table, Single Intensity T 4941 1 each

Viewing area Size: 150 mm × 150 mm

Wavelength, 312 nm, Compact Table, Dual intensity T 5066 1 each

Viewing area Size: 150 mm × 150 mm

Bulb, Longwave UV B 0526 1 each

366nm, 15W, 7500hour average life

To convert transilluminator to longwave UV for special applications

Cover/enclosure for photography C 3419 1 each

For installations where a darkroom is not dedicated to gel photography, this unit completely encloses the transilluminator.

Features large double doors for access at the front, a UV-blocking molded viewing port, bellows for MP-4 or 35mm camera coupling, and a sliding tray for photographic filters.

Transilluminator, UV, Accessory

Replacement Bulb, Midrange UV, Fluorescence λ_{emm} 312 nm Z36,372-3 1 each

To replace bulbs shipped with UV transilluminators

Replacement Bulb, Shortwave UV, Fluorescence λ_{emm} 254 nm Z36,373-1 1 each

To replace bulbs shipped with dual-range transilluminators or convert single-band transilluminator to shortwave for special applications

Power consumption: 15 W

Replacement Bulb, Longwave UV, Fluorescence λ_{emm} 366 nm Z36,375-8 1 each

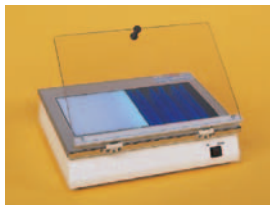
To convert transilluminator to longwave for special applications

Power consumption: 15 W

Electrophoresis, Visualization

**Replacement UV filter, viewing area
20 cm × 20 cm** **Z36,376-6** 1 each

Gel support plate **Z36,377-4** 1 each
UV-transparent for transporting and
illuminating fragile gels



Transilluminator UV/White Light

One transilluminator with two functions. The left side is a 20 × 20cm white light table for reading autoradiograms, protein gels, and multiwell plates. It is uniformly illuminated by two 8W color-balanced fluorescent tubes diffused through an opal glass stage. The right side is a 20 × 20cm 312nm UV transilluminator for ethidium bromide-stained gels and other fluorescence applications. Illumination comes from six 8W tubes. The UV filter resists solarization indefinitely with 312nm light source. A hinged UV safety screen protects the entire stage and can be propped up like a work shield.

115 V, 60 Hz **Z36,382-0** 1 each

Replacement Bulb, midrange UV **Z36,384-7** 1 each

Replacement Bulb, white fluorescent **Z36,385-5** 1 each



Transilluminator, White Light

120 V **Z36,370-7** 1 each

Well suited to a wide variety of laboratory and graphics applications: viewing and photographing stained protein gels, autoradiograms, or multiwell plates; previewing slides and overhead transparencies; registering transparent overlays. Features include

- 20 × 35 cm opal glass viewing area
- Uniformity of ±7% over entire area
- Intensity selector: 70% or 100%
- Color balanced (6500 °K) white light for true color perception reduces the need for color-correcting filters
- Cooling fan extends life of unit and prevents thermal damage to specimens.

White light transilluminators contain two 15 W and two 6 W fluorescent bulbs. outside dimensions L × W × H: 470 mm × 332 mm × 150 mm

Transilluminator, White Light, Accessory

**Replacement Bulb (6500 °K) white
fluorescent, 15 W** **Z36,386-3** 1 each

**Replacement Bulb (6500° K) white
fluorescent, 6 W** **Z36,498-3** 1 each

Same as B0276, but with a black strip on the bottom half

**Replacement Bulb Color-corrected
(5000° K) white fluorescent, 15W** **B 0276** 1 each

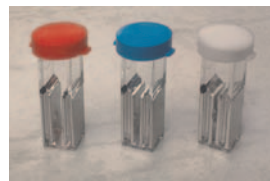
NEW Sigma-Aldrich Electroporation Cuvettes

Fits most brands of electroporators. Use for bacterial transformations, eukaryotic transfections, and the electroporation of mammalian cells and yeast. Manufactured to tight tolerances for optimum performance.

- Use the 0.1 cm gap width for bacteria (white cap)
- Use the 0.2 cm gap size width for yeast (blue cap)
- Use the 0.4 cm gap size width for mammalian cells (red cap)

All cuvettes are individually bagged, gamma irradiated for sterility and sold in bags of 50

Gap width 0.1 cm	Z70,607-8	50 each
Gap width 0.2 cm	Z70,608-6	50 each
Gap width 0.4 cm	Z70,609-4	50 each

**Filtration****Bottle-Top****Corning Bottle Top Sterile Filter Units**

Screw-on bottle top filters fit standard glass bottles, assuring proper seal

capacity(mL)	Pore size (µm)	diam. × neck size(mm)	Cat. No.	Pkg
cellulose acetate membrane				
500	0.22	33 × 33	F 6766	6 12
150	0.22	50 × 45	F 2425	48
150	0.45	50 × 33	F 2550	6 48
500	0.45	70 × 33	F 2800	12
500	0.45	55 × 33	F 7641	12
1000	0.45	90 × 33	F 3300	12
polyethersulfone membrane				
150	-	50 × 33	F 2050	6 48
150	0.22	50 × 45	F 2175	6 48
500	0.22	70 × 33	F 2675	12
1000	0.22	90 × 33	F 2925	12
1000	0.22	90 × 45	F 3175	12
500	0.22	60 × 45	Z37,157-2	12

**Millipore Millicup Sterile Filter Units**

Disposable, polyethylene. Capacity is 300 ml, filter area 11.5 square cm. Sterile

Millicup PH	Z35,510-0	10 each
Membrane: 0.5µm solvent-resistant Fluoropore PTFE		
Millicup HV	Z35,509-7	10 each
Membrane: 0.45µm low-extractable Durapore PVDF		

