

Product Bulletin

PCR Workstations™



Workstation Table (T-036-36),
36" high for 36" wide PCR Workstation™.

DESCRIPTION

The PCR Workstation™ is designed to protect against contamination in sensitive PCR amplification reactions in the following ways:

- 1) UV irradiation of working area prior to use blocks replication of contaminating DNA sequences by causing adjacent pyrimidines to undergo dimerization.
- 2) Protects against cross or airborne contamination by limiting exposure of experimental set-up to open lab environment.

Each PCR Workstation is equipped with the following:

- ◆ Acid-resistant black formica work surface
- ◆ Tempered safety glass fascia
- ◆ Duplex electrical outlet mounted in ceiling
- ◆ Two fluorescent lamps mounted in stainless steel ceiling
- ◆ Single UV Germicidal lamp with 12 hour countdown timer with time-hold position
- ◆ Single or double door closures

Optional features available:

- ◆ **Dual UV Bulb Option:** Dual UV Bulbs deliver twice the intensity of UV light than that of the single and will help irradiate areas that might otherwise be inaccessible. The Dual UV bulb format is recommended when the researcher desires to use the Workstation to decontaminate apparatus and reagents.
- ◆ Accessory table and accessory locking casters transform the PCR Workstation into a moveable work area that doesn't infringe on valuable bench-top space.

SPECIAL FEATURES

- ◆ Available in three sizes. Plenty of interior workspace for PCR reaction supplies and thermal cycler.
- ◆ Access doors close to prevent contamination, then slide into storage compartment in base during experimental procedures.
- ◆ Stainless steel ceiling increases UV dose at Workstation surface
- ◆ Hinged glass fascia allows easy access to interior workspace for cleaning and placement of large instruments.
- ◆ Dual fluorescent lamps assure excellent work space visibility.
- ◆ 254nm UV lamp with convenient switch for timed decontamination of workspace.
- ◆ A stainless steel ceiling is used for greater UV reflection, resulting in a 10% increase in UV dose in PCR Workstations with a single UV bulb and a 20% increase with a dual UV bulb.

CONVENIENT FEATURES

- ◆ Door closure(s) is closed to prevent contamination, and can be conveniently stowed away during experimental procedures by sliding into storage compartment(s) in the base of the PCR Workstation™.
- ◆ Hinged glass fascia can be easily lifted out of the way for placement and removal of a thermal cycler (or other large equipment).
- ◆ Dual fluorescent lamps provide work surface with excellent visibility.
- ◆ Table (shown above) can be ordered so that the PCR Workstation™ doesn't infringe on valuable bench-top space.
- ◆ Accessory locking casters for the table are also available, transforming the workstation into a moveable work area.

ORDERING INFORMATION See next page

High-Throughput Systems



DESCRIPTION

Three different sized High-Throughput Submarine Systems are designed for the rapid screening of samples from microtitre plates. Analyze high numbers of cloning products, restriction fragments, synthetic oligos or PCR products simultaneously. The microtitre format allows multi-channel pipetting for accuracy and speed. The three units have gel bed dimensions of 26cm wide with a choice of gel lengths of 40cm (SGU-2640T-02), 26cm (SGU-2626T-02), or 14cm (SGU-2614T-02). Each system includes base unit, safety cover with attached power leads, UV transparent gel tray, 4 each combs.

APPLICATIONS

- ◆ Rapid screening of cloning products, restriction fragments, synthetic oligos, and PCR products.

SPECIAL FEATURES

- ◆ Features tapered baffle system for simplified gel casting.
- ◆ Gel tray configuration allows single run or multiple simultaneous short runs.
- ◆ Gel trays are made from UV transparent acrylic to enable direct reading of ethidium bromide stains. Trays are 1/4" thick to prevent heat distortion during application of hot agarose and are equipped with four agarose "anchors" to prevent gel from floating during electrophoresis.
- ◆ Adjustable height polycarbonate or Teflon®-coated aluminum combs are available in many configurations, with or without markers. All combs have microtitre spacing and are available in thicknesses of 0.75mm, 1.0mm, 1.5mm, and 2.0mm with 102, 51, 28, 27, 26, and 25 wells.
- ◆ Buffer recirculation ports allow maintenance of uniform pH and ionic strength and reduce frequency of buffer changes necessary during long runs.
- ◆ Tight-fitting safety cover reduces condensation during electrophoresis.
- ◆ Coolant can be recirculated beneath gel bed to provide constant temperature runs.

ACCESSORIES

Please contact your CBS representative for ordering information of combs, gel comb bridges, gel trays, gel casters and gel tray dividers.

ORDERING INFORMATION See left

PCR WORKSTATION™ ORDERING INFORMATION

CAT. #	ITEM	
P-030-02	PCR Workstation™	Single UV light and single door closure, CE. Dimensions are 61cm x 61cm x 76cm. Includes formica working surface, hinged glass face shield, two fluorescent lights, one UV light, and integral 12 hour timer.
P-030-202	PCR Workstation™	Dual UV light otherwise same as above, CE.
P-036-02	PCR Workstation™	Single UV light and single door closure, CE. Dimensions are 61cm x 61cm x 91cm. Includes formica working surface, hinged glass face shield, two fluorescent lights, one UV light, and integral 12 hour timer.
P-036-202	PCR Workstation™	Dual UV light otherwise same as above, CE.
P-048-02	PCR Workstation™	Single UV light and single door closure, CE. Dimensions are 61cm x 61cm x 121cm. Includes formica working surface, hinged glass face shield, two fluorescent lights, one UV light, and integral 12 hour timer.
P-048-202	PCR Workstation™	Dual UV light otherwise includes same as above, CE.
T-030-28	Workstation Table	28" high for PCR Workstation P-030.
T-030-36	Workstation Table	36" high for PCR Workstation P-030.
T-036-28	Workstation Table	28" high for PCR Workstation P-036.
T-036-36	Workstation Table	36" high for PCR Workstation P-036.
T-048-28	Workstation Table	28" high for PCR Workstation P-048.
T-048-36	Workstation Table	36" high for PCR Workstation P-048.
TC-400	Table Casters	Set of 4. Locking swivel casters.

HIGH-THROUGHPUT SUBMARINE SYSTEMS

CAT. #	ITEM	
SGU-2614T-02	High-Throughput Submarine System , CE. Gel bed dimensions 26cm x 14cm. Includes 4 ea. combs and gel tray.	
SGU-2626T-02	High-Throughput Submarine System , CE. Gel bed dimensions 26cm x 26cm. Includes 4 ea. combs and gel tray.	
SGU-2640T-02	High-Throughput Submarine System , CE. Gel bed dimensions 26cm x 40cm. Includes 4 ea. combs and gel tray.	

High Visibility Auto-loader

Red and Black horizontal with Automatic loading feature



DESCRIPTION

This horizontal unit is designed for rapid sample analysis using manual or robotic loading. High precision gel tray and combs allow for repeated accurate location of sample wells by robotic pipettors. Each unit accommodates 96 samples and 8 markers. The gel dimensions are 12.5cm x 15cm and the buffer volume is 600mL. The red bottom stage provides increased contrast, enhancing the visibility of well location in the agarose and increasing the accuracy of manual sample loading. The specialized 26 well Teflon®-coated aluminum combs are multi-channel pipettor compatible and tapered for sample focusing and easy removal from agarose.

The High Visibility Auto-loader consists of:

- ◆ Unit with red bottom stage
- ◆ Two high-precision UVT gel trays with 4 comb slots and 3.0cm pathlengths
- ◆ 1 gel caster
- ◆ Eight combs designed to run a total of 104 samples (96 unknowns and 8 markers). Special comb features include:
 - 1) Triple-tapered Teflon®-coated aluminum combs allow comb to release cleanly from gel and focus sample.
 - 2) Aluminum teeth cool gel more rapidly than plastic, enabling the wells to form faster.
 - 3) Each comb has multi-channel pipettor spacing of 26 wells

APPLICATIONS

- ◆ High-throughput screening of nucleic acid fragments
- ◆ High-throughput screening of PCR products
- ◆ High-throughput screening of synthetic oligonucleotides

HIGH VISIBILITY AUTO-LOADER HORIZONTAL SYSTEM

CAT. #	ITEM
SGE-1215-RED	High Visibility Auto-Loader: Includes: Red stage horizontal unit with automatic loading feature, 2 gel trays, 8 combs, and 1 gel caster.

Color-Coded Horizontal Mini and Midi Gels



DESCRIPTION

Horizontal Mini or Midi-Gels are now available in five vivid fluorescent colors; green, yellow, purple, blue or pink. These color-coded horizontal systems are recommended to differentiate exclusive use by a specific lab or for a specific purpose. For example, pink color-coded mini-gels can be assigned for a specific use such as "RNA ONLY". These units all feature tapered baffles for leak-proof gel formation, and safety covers with attached power leads. Midi-Horizontal units include a UVT gel tray and comb. Mini-Horizontal units include a comb and feature a UVT gel bed. UVT gel trays are available for the Mini-Horizontal units as an accessory. Color-coded versions are available for our Mini-Horizontal models MGU-102T and MGU-202T, as well as for our Midi-Horizontal MGU-402T, MGU-502T and MGU-602T. To specify color desired please add color code to the end of the catalog number as described below.

COLOR CODED HORIZONTAL MINI AND MIDI GELS

CAT. #	ITEM
MGU-102T	Horizontal Mini-Gel Kit, 5.5cm(W) x 8.5cm(L). Includes tapered baffles and 1 comb.
MGU-202T	Horizontal Mini-Gel Kit, 7.5cm(W) x 10cm(L). Includes tapered baffles and 1 comb.
MGU-402T	Horizontal Midi-Gel Kit, 10.5cm(W) x 11cm(L) Includes: 1 comb, tapered baffles, and UV transparent gel tray
MGU-502T	Horizontal Midi-Gel Kit, 14cm(W) x 10cm(L) Includes: 1 comb, tapered baffles, and UV transparent gel tray
MGU-602T	Horizontal Midi-Gel Kit, 14cm(W) x 16cm(L) Includes: 1 comb, tapered baffles, and UV transparent gel tray

Color-Coded Option: To specify color desired please add the following color code to the end of the catalog number: -Y (Yellow), -P (Purple), -B (Blue), -PK (Pink), or -G (Green). Note: Midi-Horizontals are blue unless otherwise specified

Adjustable Slab Gel Systems, Single and Dual



SINGLE ADJUSTABLE

The Single Adjustable Slab Gel System is designed to meet a variety of applications. The adjustable upper buffer reservoir rides on two delrin rods, and is secured in place by two stainless steel hand screws, providing the flexibility of running gels in lengths from 14.5cm up to 28cm (ASG-250), or from 14.5cm up to 40cm (ASG-400). The soft high-grade silicone gasket on the upper reservoir prevents buffer leakage during electrophoresis. Safety covers on the upper and lower buffer reservoirs have attached power leads, and are easily removed with a counter-balance push button. This system is for protein gels and can be adapted for short sequencing runs with the appropriate accessories.

DUAL ADJUSTABLE

The Dual Adjustable Slab Gel System allows two gels to be run simultaneously under identical buffer conditions and also provides the flexibility of running gels from 14.5cm up to 28cm (DASG-250), or from 14.5cm to 40cm (DASG-400). The adjustable upper reservoir rides on two Delrin™ rods, and is secured at the desired height by tightening two stainless steel handscrews. Soft high-grade silicone gaskets on both sides of the upper reservoir prevent buffer leakage during electrophoresis. Safety covers on the upper and lower reservoirs have attached power leads, and are easily removed with a counter-balance push button. This system is for protein gels and can be adapted for short sequencing runs with the appropriate accessories.

APPLICATIONS

- ◆ Separating Proteins
- ◆ SDS PAGE
- ◆ Characterizing Proteins
- ◆ Mobility Shift Assays
- ◆ DNA Paternity Testing
- ◆ Nucleic Acid Sequencing
- ◆ Differential Display
- ◆ DNA Footprinting/Fingerprinting
- ◆ Forensic Analysis

SPECIAL FEATURES OF SINGLE AND DUAL SYSTEMS

- ◆ Unit is adjustable to provide the flexibility of running gels with path lengths of 14.5cm, 16cm, 17cm, 19cm, 22cm, or 28cm. (ASG-400 and DASG-400 can run gels lengths up to 40cm).
- ◆ A wide selection of combs and spacers is available for protein and DNA gels. Combs are offered with 9 different thicknesses and with up to 30 teeth.
- ◆ This system lends itself well to the use of fluorescence based assays whose images can be captured on a fluorimeter directly through optional borosilicate glass plate sets.
- ◆ Leveling base helps prevent uneven loading of samples.
- ◆ Glass plates are available from two different materials and in seven lengths (14.5cm, 16cm, 17cm, 19cm, 22cm, 28cm, and 40cm) and can be ordered with front plate beveled for two-dimensional electrophoresis.
- ◆ **The Gel Wrap® Casting System:** C.B.S. Scientific has developed a revolutionary new leak-proof gasket, Gel Wrap, that seals the glass plate sandwich for gel casting quickly and easily. Set-up time for gel casting can be accomplished in less than one minute. Gel Wrap is designed to perform two functions simultaneously - it holds onto the back glass plate, making it easy to handle, and it seals the spacers.



ACCESSORIES

Contact your CBS sales representative for a description of the multiple gel casting systems, gradient makers, combs, spacer sets, aluminum plates (for sequencing applications), glass plates, Gel Wrap, bar clamps, and white clamps available for these units.

ADJUSTABLE SLAB GEL SYSTEMS

CAT. #	ITEM
ASG-250*	Adjustable Slab Gel Kit. Adjustable from 14.5cm to 28cm. Includes 1 set glass plates, 1 comb, 1 set of spacers with Gel Wrap, 8 white clamps, and power leads.
ASG-400	Adjustable Slab Gel Kit. Adjustable from 14.5cm to 40cm. Includes 1 set glass plates, 1 comb, 1 set of spacers with Gel Wrap, 8 white clamps, and power leads.
DASG-250*	Dual Adjustable Slab Gel Kit. Adjustable from 14.5cm to 28cm. Includes 2 sets glass plates, 2 ea. combs, 2 sets of spacers with Gel Wrap, 16 white clamps, and power leads.
DASG-400	Dual Adjustable Slab Gel Kit. Adjustable from 14.5cm to 40cm. Includes 2 sets glass plates, 2 ea. combs, 2 sets of spacers with Gel Wrap, 16 white clamps, and power leads.

**These kits are available with special safety covers to make them CE approved. To specify "CE" version add -02 to end of cat#, e.g. Cat. # ASG-250-02.*

Versatile Family of Dual Mini Vertical Slab Gels and Blotting Systems for Proteomics



DESCRIPTION

This family of Dual Mini-Vertical Gels and Blotting Systems is designed to meet all small format electrophoresis applications. These versatile Mini-Gels for protein separation are 10cm high and have three widths for your convenience: 11.3, 20, and 33cm. Gel transfer of all three sizes of Dual Mini-Vertical Slab Gels can be easily accomplished with matching dimension Blotting Systems. These three systems offer microtitre-compatible combs and are ideal for electrophoretic separations of a large number of samples that require a relatively short pathlength for resolution. The small size permits rapid analysis of samples and reduces use of expensive reagents needed for gel formation and running buffer. A wide assortment of accessories are available for all three sizes.

Each Dual Mini-Vertical Gel System comes complete with:

- ◆ Cooling chamber with coolant recirculation ports
- ◆ Platinum electrodes
- ◆ Long-lasting silicone gasket to prevent buffer leakage during electrophoresis
- ◆ Safety cover with attached power leads
- ◆ White spring clamps
- ◆ Bussed-together power leads

Each Mini-Blotter includes:

- ◆ Internal glass cooling base for temperature controlled runs
- ◆ 2 platinum electrode panels
- ◆ 1 gel cassette assembly (two hinged, perforated fiberglass panels and two Scotch Brite® pads between which the gel and nitrocellulose or other derivatized paper are placed).
- ◆ Safety cover with attached power leads
- ◆ Tubing adapters
- ◆ Bussed-together power leads

The family includes:

Dual Mini-Vertical System, standard width, MGV-202: This system is 11.3cm wide x 10cm high and can accept 10cm x 10cm pre-cast gels. Combs are available in thicknesses of 0.5mm, 0.75mm, 1.0mm, 1.5mm, 2.0mm and 3.0mm with 1, 3, 7, 9*, 10, 14 and 18* wells. Also available (not pictured) is the Dual Mini-Vertical System, MGV-402, with dimensions 10cm wide x 8cm high. This system accepts a variety of 10cm x 8cm pre-cast gels.

Matching Dual Mini-Vertical Blotting System, standard width, EBU-202: This system can hold up to 4 gel cassettes (9cm wide x 11cm high) simultaneously.

Dual Mini-Vertical System, Double-wide, MGV-202-20: This system is 20cm wide x 10cm high. This doubles the capacity of a standard size dual unit, enabling the researcher to run the equivalent of 4 standard mini-gels at a time. Combs are available in thicknesses of 0.5mm, 0.75mm, 1.0mm, and 1.5mm, with 12, 14, 16, 17*, 20, 29, 32, and 35* wells.

Matching Dual Mini-Vertical Blotting System, Double-wide, EBU-402: This system has a 2 cassette capability. Cassette dimensions are (20cm wide x 10cm high).

Dual Mini-Vertical System, Triple-wide, MGV-202-33: This system is 33cm wide x 10cm high and is custom-designed for the mass screening of up to 204 samples simultaneously. This system lends itself well to the use of fluorescence based assays whose images can be captured on a fluorimeter directly through optional borosilicate glass plate sets. Combs are available in thickness of 0.5mm, 0.75mm, 1.0mm, 1.5mm and 2.0mm and with 31*, 34, 50, 60, 63*, and 102* number of wells.

Matching Dual Mini-Vertical Blotting System, Triple-wide, EBU-302: This system has a 2 cassette capability. Cassette dimensions are 33cm wide x 10cm high and are designed specifically for the blotting of the triple-wide gels. This system can transfer up to 6 standard or 2 triple-wide gels simultaneously.

(*microtitre-compatible)

PROTEOMICS APPLICATIONS

- ◆ SDS-PAGE
- ◆ 2-D Electrophoresis
- ◆ Agarose gel separations
- ◆ DNA fragment analysis

ACCESSORIES

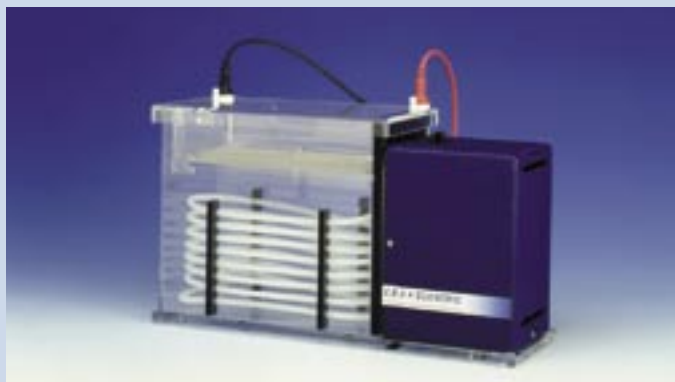
Contact your CBS sales representative for a description of the multiple gel casting systems, gradient makers, combs, spacer sets, glass plates, Gel Wrap, and white clamps available for these units.

VERSATILE FAMILY OF DUAL MINI VERTICAL SLAB GELS AND BLOTING SYSTEMS

CAT. #	ITEM
MGV-202	Dual Mini-Vertical Kit. Includes 2 ea. combs, 2 sets spacers, 2 sets glass plates, 2 ea. Gel Wrap Gaskets, and clamps.
MGV-202-20	Dual Double-Wide Mini-Vertical Kit. Includes 2 ea. combs, 2 sets spacers, 2 sets glass plates, 2 ea. Gel Wrap Gaskets, and clamps.
MGV-202-33	Dual Triple-Wide Mini Vertical Kit. Includes 2 ea. combs, 2 sets spacers, 2 sets glass plates, 2 ea. Gel Wrap Gaskets, and clamps.
EBU-202	Mini Blotter, 4-Place. Includes 1 ea. cassette.
EBU-402	Double-Wide Mini Blotter, 2-Place. Includes 1 ea. cassette.
EBU-302	Triple -Wide Mini Blotter, 2-Place. Includes 1 ea. cassette.

PGGE

Pore Gradient Lipoprotein Electrophoresis System



DESCRIPTION

The Pore Gradient Lipoprotein Electrophoresis System (LPE-4003) is designed to resolve lipoprotein sub-classes such as low density lipoproteins (LDL) and high density lipoproteins (HDL) based on particle size using non-denaturing pore gradient gel electrophoresis (1, 2, 3). Other applications include standard PAGE and short DNA sequencing runs. Temperature control (8°C - 10°C) is accomplished using a cooling coil in the buffer chamber that is connected to an external refrigerated water bath. A built-in pump recirculates the buffer and helps keep the temperature constant.

This system is specifically designed to be used with pre-cast non-denaturing acrylamide gradients from Alamo Gels, Inc. Up to four gels can be run simultaneously. Slots in a specially-molded silicone gasket hold these pre-cast gels in place in the upper reservoir. Three gel slot plugs are included in the event the researcher would like to run less than 4 gels at a time.

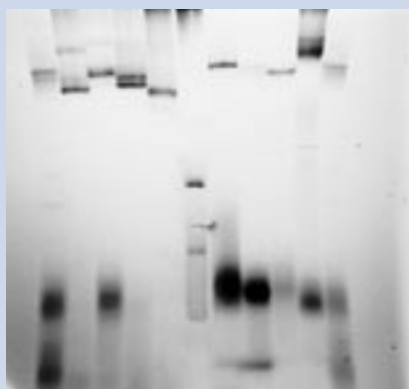
APPLICATIONS

- ◆ Resolution of Lipoprotein subclasses (HDL and LDL)
- ◆ Standard PAGE
- ◆ Short DNA Sequencing runs

REFERENCES

- 1) Rainwater, David L., et al. Characterization of a composite gradient gels for the electrophoretic separation of lipoproteins. *Journal of Lipid Research*, **Volume 38**, 1997.
- 2) Rainwater, David L., et al. Production of polyacrylamide gradient gels for the electrophoretic resolution of lipoproteins. *Journal of Lipid Research*, **Volume 33**, 1993.
- 3) Rainwater, David L., Electrophoretic Separation of LDL and HDL Subclasses, *Methods in Molecular Biology*, **Volume 110**, Lipoprotein Protocols.

LDL / HDL Pore Gradient Gel Electrophoresis Results



Composite gel 3mm thick, PAA 2-31%, demonstrating both LDL and HDL sub-classes. Sample volume 10µL. Pre-run 120V for 60 minutes, 15V for 15 minutes, 70V for 20 minutes, 125V for 24 hours ~ 3,000 volt hours.

SAMPLE APPLICATORS

Sample applicators can be ordered with a choice of 12 (LPE-SL12), 13 (LPE-SL13), or 18 (LPE-SL18) wells. Sample applicators are inserted into the top of the pre-cast gels for sample loading and remain in place during electrophoresis.

GLASS PLATES AND SPACERS

Glass plates and spacers can be ordered for researchers that desire to pour their own gradient gels. Glass plates dimensions are 82mm wide by 82mm high (LGP-082). Spacers are 82mm high and have a thicknesses of 2.8mm (LPS-028).

PRE-CAST NON-DENATURING POLYACRYLAMIDE GELS

Alamo Gels, Inc. offers both 2/16 and a 4/30 percent pre-cast non-denaturing polyacrylamide gels for high resolution gradient gel electrophoresis. The 2/16 gels (LPE-gels 2/16) are for resolving low-density lipoproteins (LDL's) over an approximate molecular weight range of 100,000-5,000,000. The 4/30 gels (LPE-gels 4/30) are for resolving high-density lipoproteins (HDL's) over an approximate range of 50,000-2,000,000. The pre-cast cassettes are 4.9mm thick with a height and width of 82mm. Gels are sold in packs of 8 and should be kept at 4°C - 8°C.

PGGE PORE-GRADIENT LIPOPROTEIN ELECTROPHORESIS SYSTEM

CAT. #	ITEM
LPE-4003	PGGE Pore-Gradient Lipoprotein Electrophoresis System. (4 Place) Includes: Base reservoir/cooling coil/ buffer pump, upper reservoir with 4 place gel slot silicone gasket, 4 ea. 12 well sample loaders safety cover with electrical interlock, and 3 gel slot plugs.
LPE-gels-4/30	4/30 Alamo polyacrylamide gradient gel (non-denaturing). Package of 8. Minimum order of 2 packs.
LPE-gels-2/16	2/16 Alamo polyacrylamide gradient gel (non-denaturing). Package of 8. Minimum order of 2 packs.

Hunter Thin Layer Peptide Mapping Electrophoresis (HTLE) System



DESCRIPTION

The Hunter Thin Layer Peptide Mapping System (HTLE-7002) was developed at the Salk Institute in the lab of Dr. Tony Hunter, for high resolution, two dimensional tryptic peptide mapping and phosphoamino acid (PAA) analysis. The unique clamping system, in conjunction with an inflatable nylon air bag, maintains an ultrathin interface between the buffer and the sample cellulose matrix, providing the user with reliable and reproducible results.

Complete system includes:

- ◆ Highly-efficient aluminum cooling platform with Teflon[®] insulation
- ◆ Clamping system with inflatable nylon air bag
- ◆ Wick-adapted buffer tanks
- ◆ Safety power leads
- ◆ Safety cover with electric interlock sensor
- ◆ Coolant flow cut-off valve (power supply shuts down if coolant flow stops)
- ◆ Step-by-step laboratory protocol and installation instructions
- ◆ In-line air pressure regulator with gauge

Optional features available:

- ◆ Air pressure electrical interlock switch

APPLICATIONS OF PEPTIDE MAPPING AND ADVANTAGES OF THE HUNTER SYSTEM OVER OTHER TECHNIQUES.

Peptide mapping is a powerful technique to help determine peptide structure and composition of proteins. Peptide maps or fingerprints of proteolysed proteins are usually obtained by resolution on either one-dimensional SDS-PAGE analysis (Cleveland), reverse-phase HPLC, or by two-dimensional separation on thin layer plates. Common applications of peptide mapping are: 1) to reveal identities between proteins suspected to be encoded by the same or related genes, 2) to prepare individual peptides to determine amino acid composition and sequence, and 3) to determine the precise location of amino acid residues that are post-translationally modified by either fatty acid acylation, glycosylation, methylation, acetylation, or phosphorylation. Because the biochemist is often faced with the reality of obtaining only

vanishingly small amounts of protein for analysis, it is often difficult or impossible to perform crucial experiments that reveal some of these important characteristics.

Two-dimensional separation of proteolytic digests using the Hunter system and chromatography on thin layer cellulose plates is a technique that is well-suited to solve at least some of these problems and has certain advantages over reverse-phase HPLC and SDS-PAGE. First, it is an extremely sensitive technique that requires only small amounts of metabolically-labeled product (only a few dpm). Second, because digests are resolved in two dimensions, a variety of information is derived that often yields subtle but important clues about a given peptide that may help reveal its composition. Finally, because cellulose is an inert substance, the peptide material can be recovered for secondary analysis such as determining amino acid composition and sequence or determining the presence and position of phosphoamino acid residues.

The Hunter System features a clamping system and an inflatable nylon air bag that removes excess liquid from the surface of the plate and prevents buffer from siphoning. This creates and maintains an ultrathin interface between the buffer and cellulose during high-voltage electrophoresis and allows uniform cooling because of close and even contact with the cooling surface.

ACCESSORIES

Please contact your CBS representative for additional information on the following accessories:

Large capacity glass chromatography tank with lid (holds up to 8 chromatography plates), 2-place chromatography tank with stainless steel rack and lid, 2-place chromatography tank with latch lid to enhance the stability of the saturated atmosphere for developing TLC plates, thin layer cellulose plates (package of 25) and a storage rack for TLC plates (holds up to 10 standard 20 x 20cm plates).



HUNTER THIN LAYER PEPTIDE MAPPING ELECTROPHORESIS (HTLE) SYSTEM

CAT. #	ITEM
HTLE-7002	Hunter Thin Layer Peptide Mapping Electrophoresis System. Includes coolant flow cut-off interlock valve and in-line air pressure regulator with gauge.
HTLE-APEI	Air pressure electric interlock switch (factory installed).

CONTACT INFORMATION



Telephone:
Local or International
858-755-4959
Toll Free: 800-243-4959



Fax: 858-755-0733



Online ordering:
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