

# 2-D ELECTROPHORESIS PROTEAN® II xi and XL Cells

Expression Proteomics // Tools for Protein Separation and Analysis

- Large format vertical electrophoresis systems
- PROTEAN II xi format for 16 x 16 cm or 16 x 20 cm gels
- PROTEAN II XL format for 2-D gels with 17 cm IPG strips
- Cells accommodate 2 to 4 gels; multi-cells accommodate up to 6 gels
- Enhanced resolution over smaller formats

## PROTEAN II xi and XL Cells and Multi-Cells for Large Format Electrophoresis

### Expression Proteomics

Bio-Rad's approach to expression proteomics focuses on three technologies: sample preparation, two-dimensional (2-D) electrophoresis, and imaging and analysis. Each technology area is ideally suited to a 2-D gel electrophoresis approach for analysis of sample proteins. By providing choices in methodology, protocols, and products, Bio-Rad's expression proteomics tools help you achieve optimal results in any 2-D experiment.

### Large Format Vertical Electrophoresis

Vertical gel electrophoresis provides unparalleled protein resolution for a variety of applications. The second separation step in 2-D electrophoresis, vertical polyacrylamide gel electrophoresis (PAGE) is a powerful technique used for one-dimensional (1-D) protein separation, analysis, and purity assessment. Whatever the application, large gel formats for vertical electrophoresis offer increased separation area, enable analysis of larger sample loads, and ultimately provide superior resolution over smaller gel formats.

The PROTEAN II xi and PROTEAN II XL cells and multi-cells are large format vertical electrophoresis cells that offer the versatility to perform a wide variety of separations, including SDS- and native PAGE, 1-D and 2-D PAGE, preparative and gradient PAGE, and even high-resolution nucleic acid separations on agarose gels. For 1-D electrophoresis, use the PROTEAN II xi cell or xi multi-cell to run 16 x 16 cm or 16 x 20 cm gels. For 2-D analysis, use the PROTEAN II XL cell or XL multi-cell to run second-dimension gels (18.5 x 20 cm) that accommodate 17 cm immobilized pH gradient (IPG) strips.

### Versatile

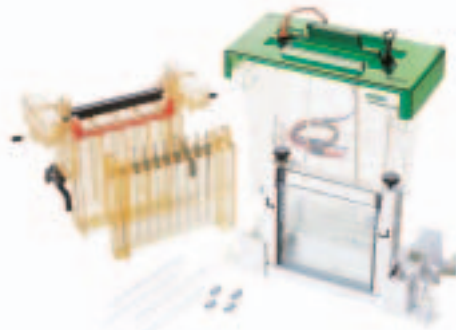
- Run 2 to 4 slab gels simultaneously with the PROTEAN II xi and XL cells or up to 6 gels with the multi-cells
- Expand the PROTEAN II xi cell to the PROTEAN II XL format with the PROTEAN II IPG conversion kit — for second-dimension runs using 17 cm IPG strips
- Choose Ready Gel® single percentage or gradient precast gels for both the PROTEAN II xi and PROTEAN II XL formats, or hand cast your own gels

### Reliable

- Central cooling core maximizes resolving power and gel-to-gel reproducibility
- Buffer recirculation maintains uniform pH for better separation and reproducibility
- Raised upper electrode prevents arcing
- Safety lid prevents accidental reversal of polarity
- High-quality materials offer durability

### Easy to Assemble

- Single screw clamps minimize assembly time
- Casting seal eliminates messy grease and agarose leaks when hand casting gels



PROTEAN II xi 2-D  
Precast Gel System

**BIO-RAD**

## Ordering Information

Catalog #	Description
<b>PROTEAN II xi Cells,* for 16 x 16 cm and 16 x 20 cm Gel Sizes</b>	
165-1801	PROTEAN II xi Cell, 16 cm, without spacers and combs
165-1802	PROTEAN II xi Cell, 16 cm, 1.5 mm spacers (4), 15-well combs (2)
165-1803	PROTEAN II xi Cell, 16 cm, 1.0 mm spacers (4), 15-well combs (2)
165-1804	PROTEAN II xi Cell, 16 cm, 0.75 mm spacers (4), 15-well combs (2)
165-1811	PROTEAN II xi Cell, 20 cm, without spacers and combs
165-1812	PROTEAN II xi Cell, 20 cm, 1.5 mm spacers (4), 15-well combs (2)
165-1813	PROTEAN II xi Cell, 20 cm, 1.0 mm spacers (4), 15-well combs (2)
165-1814	PROTEAN II xi Cell, 20 cm, 0.75 mm spacers (4), 15-well combs (2)
<b>PROTEAN II XL Cells, Wide Format, Compatible With ReadyStrip™ IPG Strips, for 18.3 x 20 cm Gel Size</b>	
165-3188	PROTEAN II XL Cell, wide format, 1.0 mm, includes PROTEAN II xi basic unit (165-1834) and 1.0 mm IPG conversion kit (165-3183)
165-3189	PROTEAN II XL Cell, wide format, 1.5 mm, includes PROTEAN II xi basic unit (165-1834) and 1.5 mm IPG conversion kit (165-3186)
165-3190	PROTEAN II XL Cell, wide format, 2.0 mm, includes PROTEAN II xi basic unit (165-1834) and 2.0 mm IPG conversion kit (165-3184)
<b>PROTEAN II xi 2-D Cells**</b>	
165-1931	PROTEAN II xi 2-D Cell, 1.0 mm, 16 cm
165-1932	PROTEAN II xi 2-D Cell, 1.5 mm, 16 cm
165-1933	PROTEAN II xi 2-D Cell, 1.0 mm, 20 cm
165-1934	PROTEAN II xi 2-D Cell, 1.5 mm, 20 cm
<b>PROTEAN II IPG Conversion Kits for 2-D (to Convert xi to XL)</b>	
165-3183	PROTEAN II xi Cell IPG Conversion Kit, 1.0 mm, 18.5 x 20 cm, includes 2 sets of IPG clamps, 2 sets of 20 x 20 cm glass plates, 4 IPG spacers, 2 IPG 2-D combs, 2 IPG central cooling core gaskets, 2 casting stand gaskets, alignment card
165-3186	PROTEAN II xi Cell IPG Conversion Kit, 1.5 mm, 18.5 x 20 cm
165-3184	PROTEAN II xi Cell IPG Conversion Kit, 2.0 mm, 18.5 x 20 cm
165-1834	PROTEAN II xi Basic Unit With Casting Stand, includes central cooling core, lower buffer chamber, lid with cables, leveling bubble; combine with an IPG conversion kit for a complete 18.5 cm wide format system
<b>PROTEAN II xi Multi-Cell</b>	
165-1951	PROTEAN II xi Multi-Cell, includes 3 central cooling cores with gaskets, buffer tank, lid with power cables, 1 upper buffer dam, PROTEAN II xi multi-casting chamber with accessories, leveling bubble, instructions
165-1956	PROTEAN II xi Multi-Cell 2-D Conversion Kit, for proper cooling, includes 2 cooling coils and manifold (required for 2-D electrophoresis applications)
<b>PROTEAN II XL Multi-Cell, Wide Format, Compatible With ReadyStrip IPG Strips</b>	
165-3176	PROTEAN II XL Multi-Cell, wide format, 1.0 mm
165-3177	PROTEAN II XL Multi-Cell, wide format, 1.5 mm
165-3178	PROTEAN II XL Multi-Cell, wide format, 2.0 mm
<b>PROTEAN II XL Ready Gel Precast Gels, IPG Well</b>	
161-1450	10% Tris-HCl Gel, 1.0 mm thick, 18.3 cm x 19.3 cm, IPG well
161-1451	12% Tris-HCl Gel, 1.0 mm thick, 18.3 cm x 19.3 cm, IPG well
161-1452	10–20% Tris-HCl Gel, 1.0 mm thick, 18.3 cm x 19.3 cm, IPG well
161-1453	8–16% Tris-HCl Gel, 1.0 mm thick, 18.3 cm x 19.3 cm, IPG well
<b>PROTEAN II xi Ready Gel Precast Gels, 15-Well</b>	
161-1454	10% Tris-HCl Gel, with 4% stacking gel, 1.0 mm thick, 16 x 16 cm, 15-well
161-1455	12% Tris-HCl Gel, with 4% stacking gel, 1.0 mm thick, 16 x 16 cm, 15-well
161-1456	10–20% Tris-HCl Gel, with 4% stacking gel, 1.0 mm thick, 16 x 16 cm, 15-well
161-1457	8–16% Tris-HCl Gel, with 4% stacking gel, 1.0 mm thick, 16 x 16 cm, 15-well
<b>PROTEAN II xi Ready Gel Precast Gels, 20-Well</b>	
161-1458	10% Tris-HCl Gel, with 4% stacking gel, 1.5 mm thick, 16 x 16 cm, 20-well
161-1459	12% Tris-HCl Gel, with 4% stacking gel, 1.5 mm thick, 16 x 16 cm, 20-well
161-1460	10–20% Tris-HCl Gel, with 4% stacking gel, 1.5 mm thick, 16 x 16 cm, 20-well
161-1461	8–16% Tris-HCl Gel, with 4% stacking gel, 1.5 mm thick, 16 x 16 cm, 20-well

\* Each PROTEAN II xi cell includes a central cooling core with gaskets, lower buffer chamber, lid with cables, 2 sets of glass plates, 4 sandwich clamps, upper buffer dam, casting stand with gaskets, leveling bubble, and instructions. The 16 cm cells include clamps for running 16 cm gels; the 20 cm cells include clamps for 20 cm gels. Cells without spacers and combs (catalog #165-1801 and #165-1811) allow you to select the spacer thickness and comb that will best fit your application.

\*\* Each PROTEAN II xi 2-D cell includes a central cooling core with gaskets, lower buffer chamber, lid with cables, 2 sets of glass plates (with beveled inner plates), 4 sandwich clamps, twenty-four 180 mm long glass tubes (tube diameter = spacer thickness), 2 tube gel adaptors, 16 grommets, 16 stoppers, two 2-D combs, 4 spacers, upper buffer dam, casting stand with gaskets, leveling bubble, and instructions. Sandwich clamps are sized to fit the gel length appropriate for the cell (16 cm or 20 cm). 1.0 mm and 1.5 mm indicate the thickness of spacers and combs included with the cell.

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