2-D ELECTROPHORESIS

ReadyStrip™ IPG Strips
Part of the ProteomeWorks® System

- Innovative
  24 cm ReadyStrip IPG strips with unique bar code feature
- Consistent
  True linear pH gradients and tight gel length tolerances
- Versatile
  Five strip lengths to fit all second-dimension systems

Broad-, Narrow-, and Micro-Range pI Resolution for Multiple 2-D Gel Formats

Introduction

ReadyStrip IPG (immobilized pH gradient) strips are dehydrated polyacrylamide gels cast on solid film. These gels consist of IPG monomers (acrylamide derivatives with various pKs) covalently bound to the polyacrylamide matrix. IPG strips are used for isoelectric focusing of proteins in the first dimension of 2-D gel electrophoresis.

In the past, 2-D separations were performed with tube gels and ampholytes, which made it very difficult to achieve reproducible results, due to cathodic drift and the fragility of the gels. The introduction of IPG strip technology simplified the technique while offering greater reproducibility, with the immobilized pH gradient on an easy-to-handle supported strip.

Innovation

- New! 24 cm ReadyStrip IPG strips with bar coding.
  Unique bar code feature on every 24 cm ReadyStrip IPG strip provides convenient sample tracking

Label and bar code on 24 cm ReadyStrip IPG strip.

- Micro-range gradients for the ultimate in resolution — zoom in on an area of interest or fine-map an entire proteome; strips are carefully designed with sufficient overlap to allow spot matching while limiting the extent of redundant data
- Narrow, overlapping pH gradients (3–6, 5–8, 7–10) for greater resolution with more centimeters of gel per pH unit, for stand-alone use or for the creation of overlapped “virtual” gels (see images on back)

Consistency

ReadyStrip IPG strips provide run-to-run reproducibility with tight gel length tolerances of ±2 mm, yielding consistent pI separations and allowing the direct comparison of spots from one gel to another.

Versatility

Strip lengths are appropriate for mini and large formats to accommodate high-throughput method development and maximum resolution.

Convenience

Each precast ReadyStrip IPG strip is clearly and permanently labeled to mark the anode and the pH range, eliminating mix-ups. In addition, 24 cm strips carry a bar code as well as user-readable characters to simplify tracking of strips in high-throughput laboratories.

2-D gel electrophoresis has become an increasingly important tool in the emerging field of proteomics. In support of this new field, Bio-Rad has developed the integrated ProteomeWorks system, which provides the tools necessary for all aspects of proteome research — from sample preparation and IEF to image analysis and protein identification. For more information, request bulletin 2619 or visit our ProteomeWorks web site at www.proteomeworkssystem.com

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Gels for Mini Format 2-D Runs

The Criterion gel and ReadyStrip 11 cm IPG strip provide:

- An optimum combination of pl separation and fast run times
- Error-free setup with “drop-in” gel and cell design
- 60% greater pl separation in the first dimension than other mini gels
- <1 hr second-dimension run times for “2-D in a day” capability

Screening of samples is simplified using ReadyStrip IPG strips of overlapping ranges. Three narrow pH range 17 cm ReadyStrip IPG strips increase resolution by creating a virtual gel equivalent to 40 cm of separation across a pH 3–10 range. Resolving power is increased, allowing definition of proteins not visible by traditional methods. Data provided by Sjouke Hoving, Hans Voshol, and Jan van Oostrom of Novartis Pharma AG, Basel, Switzerland.

### Specifications

<table>
<thead>
<tr>
<th>Strip Length</th>
<th>7 cm Strips</th>
<th>11 cm Strips</th>
<th>ReadyStrip IPG Strip Length</th>
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<tr>
<td>Strip length</td>
<td>7.9 ± 0.1 cm</td>
<td>11.8 ± 0.1 cm</td>
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<td>Gel length</td>
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<td>17.1 ± 0.2 cm</td>
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<td>4% T, 3% C</td>
<td>4% T, 3% C</td>
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<td>Strip width</td>
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<td>Gel thickness</td>
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<td>Criterion cells/</td>
<td>PROTEAN® XL cells/</td>
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<td>SDS-PAGE</td>
<td>Ready Gel® precast gels</td>
<td>Criterion precast gels</td>
<td>PROTEAN II Ready Gel precast gels</td>
</tr>
</tbody>
</table>

### Ordering Information

#### Bio-Lyte® IEF Buffers

- **163-2094** ReadyPrep 2-D Cleanup Kit, 50 preps
- **163-2090** ReadyPrep Reduction-Alkylation Kit, 100 preps
- **163-2089** ReadyPrep Protein Extraction Kit
  - Cytoplasmic/Nuclear, 50 preps
  - ReadyPrep Protein Extraction Kit (Membrane), 50 preps
  - ReadyPrep Protein Extraction Kit (Signal), 50 preps
  - ReadyPrep Proteomics Grade Water, 500 ml
- **163-2091** ReadyPrep Sequential Extraction Kit
- **163-2105** ReadyPrep 2-D Starter Kit
- **163-2092** PROTEAN Plus Overlay Agarose, 125 ml
- **163-2111** ReadyPrep Overlay Agarose, 50 ml
- **163-2129** Mineral Oil, biotechnology grade, 500 ml
- **165-4071** Precut Filter Paper Wicks, 500
- **165-4035** Disposable Rethylation/Equilibration Tray
- **163-4025** Disposable Rethylation/Equilibration Tray

#### Catalog # Description

- **163-2130** ReadyPrep 2-D Cleanup Kit, 50 preps
- **163-2090** ReadyPrep Reduction-Alkylation Kit, 100 preps
- **163-2089** ReadyPrep Protein Extraction Kit
- **163-2091** ReadyPrep Proteomics Grade Water, 500 ml
- **163-2092** PROTEAN Plus Overlay Agarose, 125 ml
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### Note

* Dilute ReadyStrip buffers to 1x final in each sample to equal 0.2% Bio-Lyte ampholyte.

** Use 163-2094 for ReadyStrip pH 3–10, 4–7, 3–6, and 5–8 IPG strips.