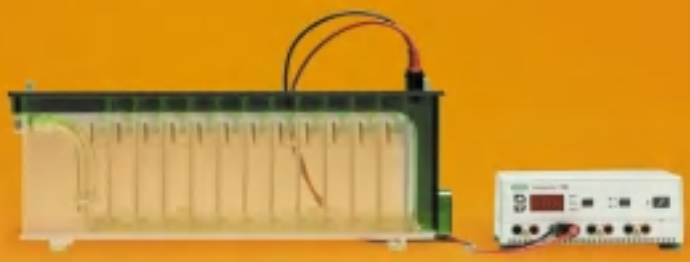
criterion.
Dodeca™ Cell

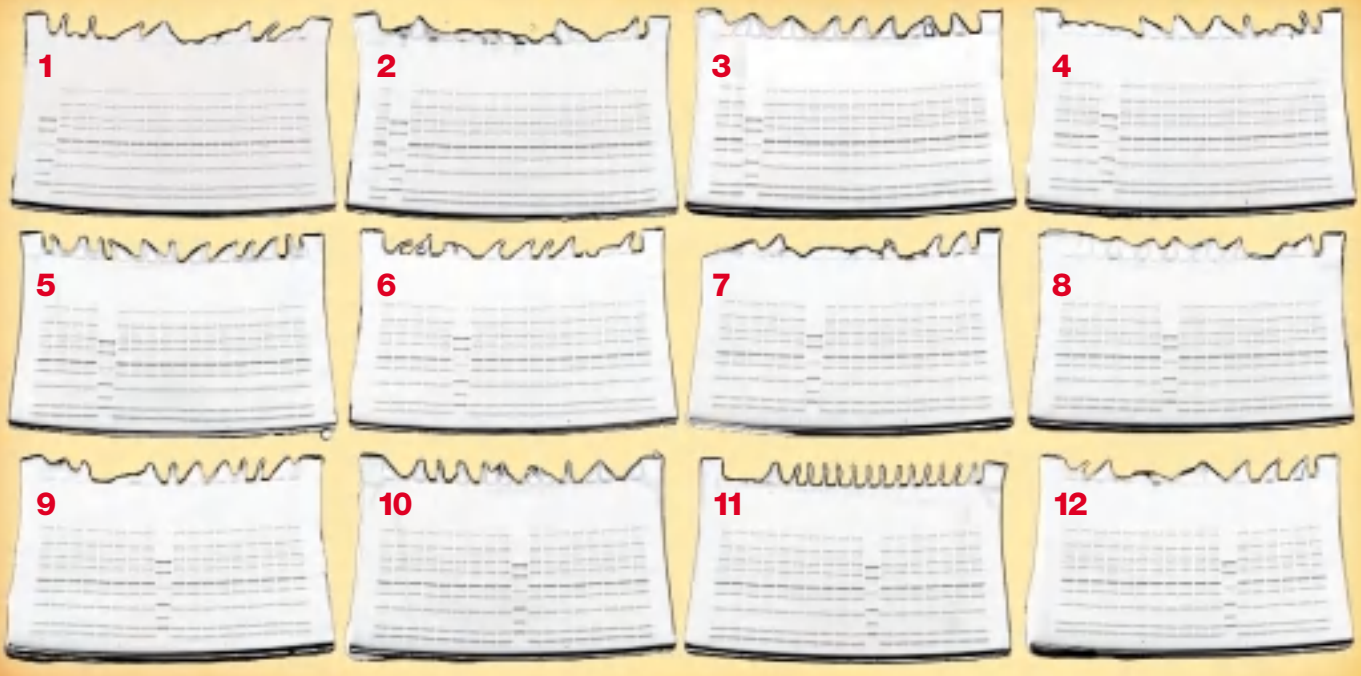
An Optimal Combination
of Speed, Resolution, and Throughput

BIO-RAD

High Throughput and Great Results From a Compact Package



Compact Footprint.
The Criterion Dodeca cell gives you 6 times the capacity of a single Criterion cell for a little over double the benchspace.



The Criterion Dodeca cell's built-in cooling coil and stirbar capabilities provide sufficient cooling for maximum reproducibility in all 12 gels.
Twelve 4–20% Tris-HCl Criterion precast gels were loaded with Bio-Rad's unstained standards. Prestained standards were loaded in the lane corresponding to the gel number. The cell was positioned on a stirplate and a stirbar was placed inside to mix the buffer. A refrigerated circulator was connected to the Dodeca cell. The gels were run at 200 V for one hour. The gels were stained using Bio-Safe™ Coomassie stain and scanned using the Bio-Rad GS-710 calibrated imaging densitometer.

12 times the data in just 55 minutes

Criterion Dodeca Cell

The Criterion Dodeca cell, a component of the revolutionary Criterion precast gel system, allows you to run up to 12 Criterion gels in a single run. Perfect for high-throughput gel analysis, the Criterion Dodeca cell is easy to assemble and takes only 55 minutes to run.

Advantages of the Dodeca Cell

With the Dodeca cell, up to 12 gels can be run simultaneously under identical conditions, reducing the number of run variables and improving reproducibility. A built-in cooling coil attaches to an external refrigerated circulator for efficient cooling, while stirbar capabilities facilitate uniform buffer tank temperatures. A quick-connect drain port allows convenient cleanup, and the compact footprint saves valuable benchspace.

The Criterion Difference

The innovation behind Criterion is the cassettes' patented* integrated buffer chamber, which simplifies assembly and ensures the system will never leak. Locator slots for the cassettes allow you to slide the gels into place without alignment hassles or bulky clamps. Gels are longer and wider than traditional mini systems, allowing you to get more data from a single run. Each gel is marked with gel type, a numbered well outline, lot number, and expiration date. Precast Criterion gels come in a wide selection of acrylamide percentage, buffer, and comb types.

Criterion Cell Simplicity

1. Drop in cassettes
2. Pour in buffer and load samples
3. Close the lid and start the run

*US patents 5,073,246 and 5,656,145. Other patents issued and pending.

Built-in cassette opener for easy gel access in one simple step

Runs up to 12 Criterion gels simultaneously in just 55 minutes

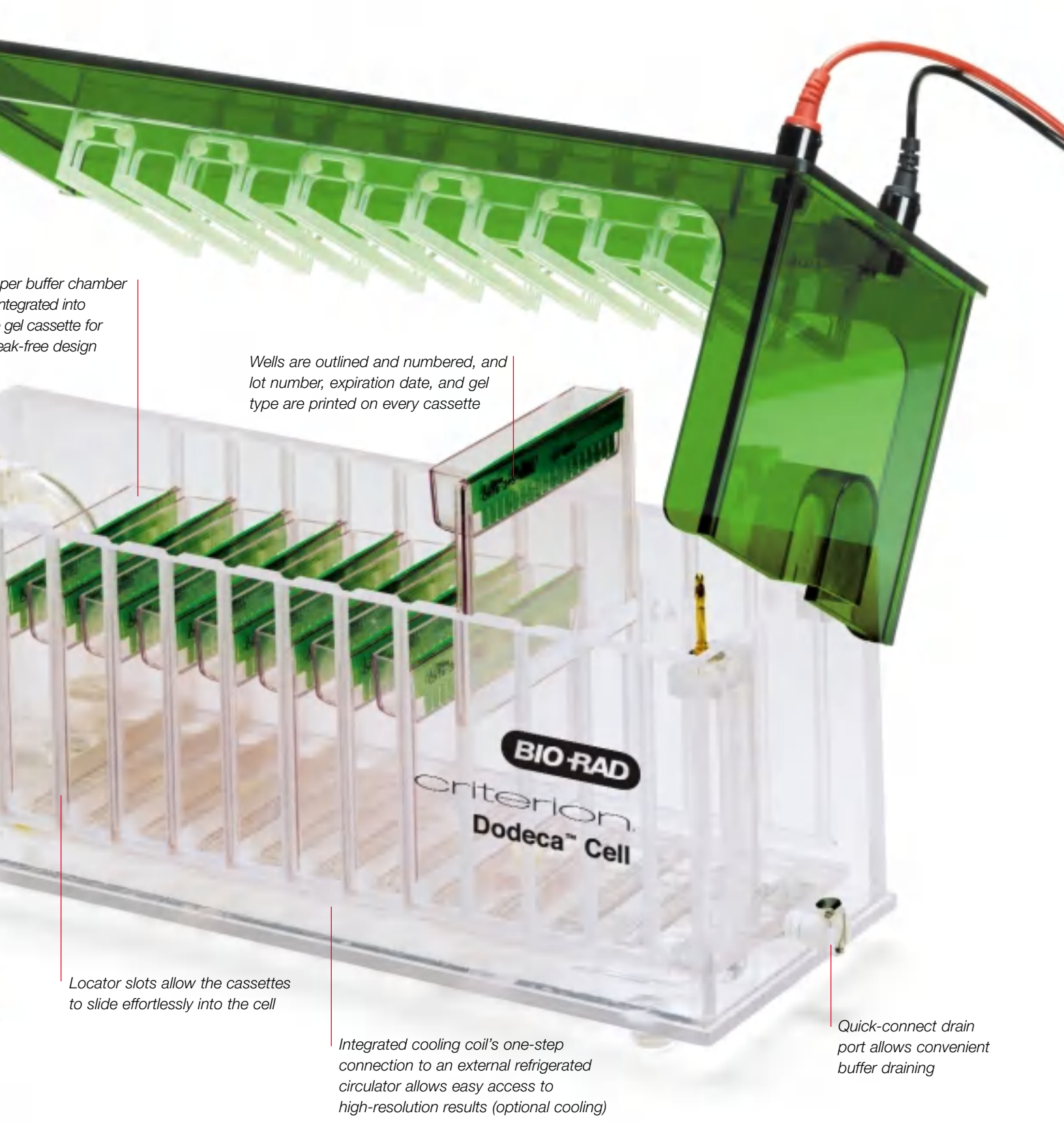
Stirbar capability creates uniform buffer tank temperatures for reproducibility

New!
Now available in IPG plus reference well (IPG+1) format

Criterion System Productivity Tools

Criterion Precast Gels

Criterion gels are wider and longer (13.3 x 8.7 cm) than traditional mini gels and accommodate Bio-Rad's 11 cm ReadyStrip™ IPG strips plus a reference well. A simple patented* design integrates the upper buffer chamber into the body of the gel cassette for an easy-to-assemble and leakproof system.



AnyGel™ Stands

AnyGel stands are docking and prepping stations that provide vertical stabilization and easy access to virtually any size slab gel cassette. The single-row format accommodates two Criterion gels, while the 6-row model for high-throughput labs accommodates up to 13 Criterion gels (12 vertical plus one angled in front for loading IPG strips).

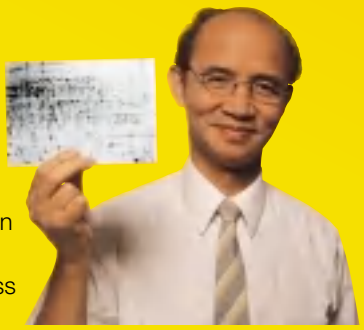
Sample Loading Guides

Patented* sample loading guides direct your loading tip directly to the bottom of each well. With outlined and numbered wells printed on each gel cassette, the Criterion system makes it easy to spot and load wells.

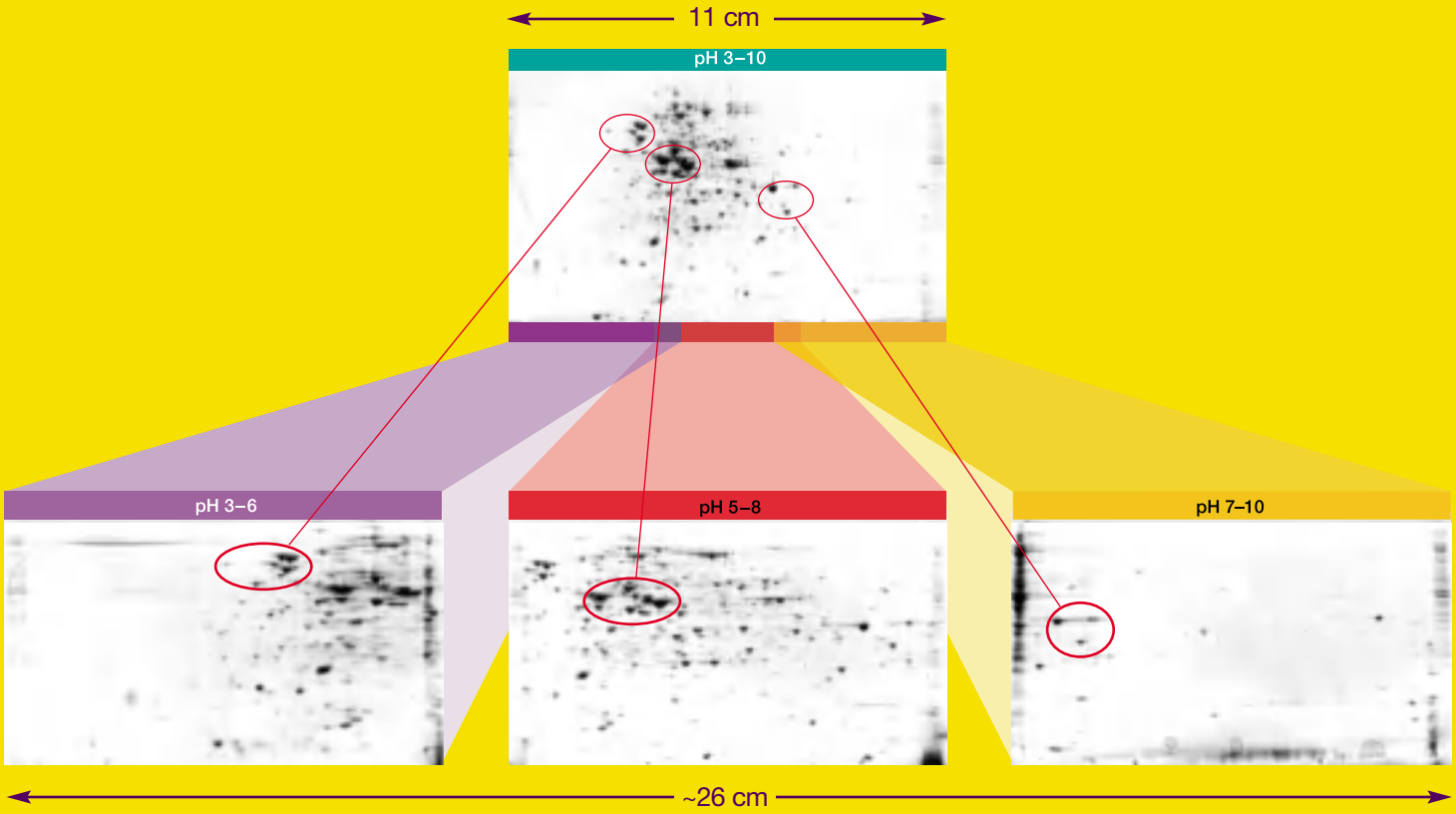
Optimal Combination of Speed and Resolution in 2-D Applications

The Criterion Dodeca cell combines the resolution of a large-format gel with the speed and ease of a mini, to provide a powerful acceleration tool in 2-D PAGE applications. Replace large-format systems with the Criterion Dodeca cell or use it in combination with a large-format system for optimizing sample preparation methods and screening. Used in conjunction with 11 cm overlapping pH range IPG strips, the Criterion format provides approximately 26 cm width of resolving power in the first dimension (see below). Criterion gels offer a shorter second-dimension running time than large gels — only 55 minutes instead of 6 hours! Compared to traditional mini formats, the Criterion system provides 60% more resolving area in the first dimension, and 24% more resolving area in the second dimension.

2-D in a Day



The Criterion Dodeca cell and gels, along with the ReadyPrep™ sequential extraction kit, the first-dimension PROTEAN® IEF system, and SYPRO Ruby protein gel stain, combine to provide 2-D results in less than 24 hours! For more information, request bulletin 2563 for the "2-D in a Day" protocol or visit us on the Web at **www.proteomeworkssystem.com**



Overlapping pH range IPG strips increase resolving power in the first dimension.
E. coli lysate (40 µg per gel) was run on 11 cm narrow overlapping pH range ReadyStrip IPG strips and focused to 20,000 V-hr. The strips were then transferred to 8–16% Tris-HCl Criterion precast gels for the second-dimension run. The gels were stained with colloidal Coomassie Blue. More proteins are detected on the three overlapping gels than on the single 3–10 pH range gel. Note the improved resolution of proteins in the highlighted areas.

Criterion Doceda Cell Specifications

Number of gels	1 to 12	Cooling (optional)	Built-in cooling coil, external buffer recirculation pump, and refrigerated circulator (circulator must be purchased separately; recommended flow rate 10–15 L/min, recommended cooling capacity ≥250 W at 20ºC)
Gel size	13.3 x 8.7 cm (W x L)		
Gel thickness	1.0 mm		
Total buffer volume required	6 L (maximum)		
Typical running conditions	200 V constant, 1 A, 200 W max, 55 min	Dimensions	49 x 18.8 x 19.2 cm (L x W x H)
Recommended power supply	PowerPac™ 200 power supply		

Ordering Information

Catalog #	Description
Criterion Dodeca Cell	
165-4130	Criterion Dodeca Cell, includes tank and lid with power cables, instructions
165-5133	Criterion Dodeca Cell and 6-row AnyGel Stand, includes catalog numbers 165-4130 and 165-5131
165-4135	Replacement Lower Electrode Assembly
165-4136	Replacement Cooling Coil
165-4137	Replacement Lid

Catalog #	Description
PowerPac 200 Power Supply	
165-5052	PowerPac 200 Power Supply, 100/120 V
165-5053	PowerPac 200 Power Supply, 220/240 V
AnyGel Stands	
165-4131	AnyGel Stand, single row, holds 2 Criterion cassettes, 1 PROTEAN gel sandwich, or 3 Ready Gel® cassettes
165-5131	AnyGel Stand, 6-row, holds 12 Criterion cassettes, 6 PROTEAN gel sandwiches, or 18 Ready Gel cassettes






	12+2 Well Comb*, ** 45 µl Samples	18-Well Comb 30 µl Samples	26-Well Comb* 15 µl Samples	Prep+2 Well Comb** 800 µl Samples	IPG+1 Well Comb** 11 cm IPG Strip	IPG-Well Comb 11 cm IPG Strip
Criterion Tris-HCl Gels						
5% Resolving Gel	345-0001	345-0002	345-0003	345-0004	—	—
7.5% Resolving Gel	345-0005	345-0006	345-0007	345-0008	—	—
10% Resolving Gel	345-0009	345-0010	345-0011	345-0012	345-0101	345-0013
12.5% Resolving Gel	345-0014	345-0015	345-0016	345-0017	345-0102	345-0018
15% Resolving Gel	345-0019	345-0020	345-0021	345-0022	—	—
18% Resolving Gel	345-0023	345-0024	345-0025	345-0026	—	—
4–15% Linear Gradient	345-0027	345-0028	345-0029	345-0030	345-0103	345-0031
4–20% Linear Gradient	345-0032	345-0033	345-0034	345-0035	345-0104	345-0036
8–16% Linear Gradient	345-0037	345-0038	345-0039	345-0040	345-0105	345-0041
10.5–14% Linear Gradient	345-9949	345-9950	345-9951	345-9952	345-0106	345-9953
10–20% Linear Gradient	345-0042	345-0043	345-0044	345-0045	345-0107	345-0046

Sample Loading Guides

165-6006	Criterion Sample Loading Guide, 12+2 well, 1
165-6007	Criterion Sample Loading Guide, 18-well, 1
165-6008	Criterion Sample Loading Guide, 26-well, 1

Criterion Gel System Accessories

345-9920	Criterion Staining/Blotting Trays, 12 trays with lids
345-9901	Criterion Empty Cassettes, 1.0 mm thick with 12+2 comb, 10 sets
345-9902	Criterion Empty Cassettes, 1.0 mm thick with 18-well comb, 10 sets
345-9903	Criterion Empty Cassettes, 1.0 mm thick with 26-well comb, 10 sets
345-9904	Criterion Empty Cassettes, 1.0 mm thick with prep+2 comb, 10 sets
345-9905	Criterion Empty Cassettes, 1.0 mm thick with IPG comb, 10 sets
345-9906	Criterion Empty Cassettes, 1.0 mm thick with IPG+1 comb, 10 sets

ReadyStrip IPG Strips

163-2014	11 cm ReadyStrip IPG Strips, pH 3–10, 12 strips
163-2015	11 cm ReadyStrip IPG Strips, pH 4–7, 12 strips
163-2016	11 cm ReadyStrip IPG Strips, pH 3–10 nonlinear (NL), 12 strips
163-2017	11 cm ReadyStrip IPG Strips, pH 3–6, 12 strips
163-2018	11 cm ReadyStrip IPG Strips, pH 5–8, 12 strips
163-2019	11 cm ReadyStrip IPG Strips, pH 7–10, 12 strips
163-2024	11 cm ReadyStrip IPG Strips, pH 3.9–5.1, 12 strips
163-2025	11 cm ReadyStrip IPG Strips, pH 4.7–5.9, 12 strips
163-2026	11 cm ReadyStrip IPG Strips, pH 5.5–6.7, 12 strips
163-2027	11 cm ReadyStrip IPG Strips, pH 6.3–8.3, 12 strips

Premixed Electrophoresis Buffers***

161-0772	10x Tris/Glycine/SDS, 5 L
161-0771	10x Tris/Glycine, 5 L

* Multichannel pipet compatible.

** Includes reference well(s).

*** Refer to the Bio-Rad Life Science catalog or visit us on the Web at discover.bio-rad.com for information on other types of Criterion gels and premixed buffers.

The ProteomeWorks™ System

The Criterion Dodeca cell is part of the ProteomeWorks system, the global alliance between Bio-Rad Laboratories, Inc. (USA) and Micromass, Ltd. (UK), dedicated to furthering proteomics research.