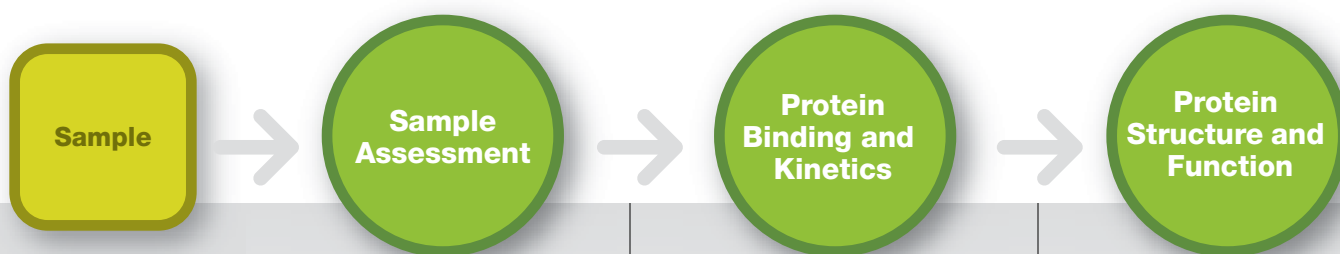







Life Science Research  
Protein Interaction Analysis



# Protein Interaction Analysis



	<b>Sample Assessment</b>	<b>Protein Binding and Kinetics</b>	<b>Protein Structure and Function</b>
<b>Description</b>	Assessment of protein purity and quantity, as well as protein characterization	Determination of protein binding characteristics and kinetic properties	Further protein analysis, including structural and functional analysis
<b>Applications</b>			
Mutation analysis	●	●	●
Protein interface mapping	●	●	●
Antibody characterization	●	●	●
Drug development	●	●	●
Signal transduction pathway elucidation	●	●	●
<b>Technologies</b>	Automated protein electrophoresis Protein electrophoresis Protein blotting Image analysis Spectrophotometry and fluorometry Protein assays	Protein sample preparation Preparative electrophoresis Quantitative PCR (qPCR) Protein interaction analysis Automated affinity chromatography Tagged protein purification Ion exchange chromatography Hydroxyapatite and affinity chromatography Size exclusion chromatography Microarray analysis Multiplex suspension array technology — protein Mutation analysis	Automated affinity chromatography Tagged protein purification Ion exchange chromatography Hydroxyapatite and affinity chromatography Size exclusion chromatography Protein electrophoresis Protein blotting Image analysis Quantitative PCR (qPCR)
<b>Related Products</b>			
	Experion™ automated electrophoresis system Criterion™ cell and precast gels Criterion blotter PowerPac™ Universal power supply Molecular Imager® VersaDoc™ MP 4000 system	ReadyPrep™ 2-D cleanup kit ReadyPrep sequential extraction kit Model 491 prep cell MiniOpticon™ real-time PCR system iQ™5 real-time PCR system ProteOn™ XPR36 protein interaction array system Profinia™ protein purification system Profinity™ IMAC and GST resins	Profinia protein purification system UNOsphere™ Q support Bio-Gel™ HT and HTP hydroxyapatite CHT™ ceramic hydroxyapatite Criterion cell and precast gels Mini-PROTEAN® Tetra cell PowerPac Basic power supply Molecular Imager VersaDoc MP 4000 system



Profiling and identification of proteins

Validation of the biological role

**Protein Kinetics**

Proteins play a crucial role in cellular structure and function. The search, discovery, and characterization of proteins is the first step in understanding how each protein participates in a biological process. The next logical step is to understand how a protein functions: What binding patterns exist? Is this protein involved in a network? How does one protein interface with another? What are the binding dynamics?

The ProteOn XPR36 system bridges the gap between discovery and function, providing the ability to understand protein interactions with the efficiency, flexibility, and versatility of parallel processing.

Bio Rad provides the most accessible high-throughput tools for multiplexing to provide protein function researchers with rapid and consistent results from the biophysical characterization of a protein to defining its biological role.

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- Surface-enhanced laser desorption/ionization (SELDI)
- Liquid chromatography-tandem mass spectrometry (LC-MS/MS)

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- Protein electrophoresis
- Protein blotting
- Image analysis
- Isoelectric focusing
- Lipid-mediated transfection
- Electroporation
- Data analysis and bioinformatics



ProteinChip® SELDI system




- PROTEAN® IEF system
- Criterion cell and precast gels
- Molecular Imager® PharosFX™ system
- siLentFect™ lipid reagent for RNAi
- TransFectin™ lipid reagent
- Gene Pulser Xcell™ total system
- Gene Pulser®/MicroPulser™ cuvettes

## Protein Interaction Analysis

Sample > Sample Assessment > Protein Binding and Kinetics > Protein Structure and Function > Protein Profiling and Quantification > Validation > Protein Kinetics

For a complete list of products and related product information, refer to the 2006/2007 catalog, visit us on the Web at [www.bio-rad.com](http://www.bio-rad.com), or contact your local Bio-Rad representative.

### Ordering Information

Catalog #	Description	Catalog #	Description
<b>Sample Assessment</b>			
700-7000	<b>ExperionSystem</b> , for protein analysis (analysis kits sold separately)	169-2000	<b>BioOdyssey Calligrapher MiniArrayer</b> , 115 V
165-6001	<b>CriterionCell</b>	169-2100	<b>BioOdyssey Calligrapher MiniArrayer</b> , 230 V
Varies	<b>CriterionTris-HCl Gels</b>	171-000201	<b>Bio-Plex 200 System</b>
170-4071	<b>CriterionBlotter With Wire Electrodes</b>	171-000205	<b>Bio-Plex200 System With HTF</b> , includes high-throughput fluidics
170-4070	<b>CriterionBlotter With Plate Electrodes</b>	Varies	<b>DCode System for DGGE</b>
164-5070	<b>PowerPacUniversal Power Supply</b>	<b>Protein Structure and Function</b>	
170-8640	<b>Molecular Imager VersaDoc MP 4000 System</b> , PC or Mac, includes CCD camera, darkroom, power supply, cables, epi-illumination, transillumination, fluorescent reference plate, focusing target, Quantity One software, instructions	732-4100	<b>UNOsphere Q Bio-Scale Mini Q Cartridges</b> , 5 x 1 ml
170-2525	<b>SmartSpec Plus Spectrophotometer</b>	130-0150	<b>Bio-Gel HT Hydroxyapatite</b> , hydrated, 250 ml
170-2402	<b>VersaFluor Fluorometer</b>	158-2000	<b>CHT Ceramic Hydroxyapatite</b> , Type I, 20 µm, 10 g
500-0205	<b>Quick Start™ Bradford 1x Dye Reagent</b> , 1 L	165-8031	<b>Mini-PROTEAN Tetra Cell and Mini Trans-Blot Cell</b>
<b>Protein Binding and Kinetics</b>		164-5050	<b>PowerPac Basic Power Supply</b>
163-2130	<b>ReadyPrep 2-D Cleanup Kit</b> , 50 preps	<b>Protein Profiling and Quantitation</b>	
163-2100	<b>ReadyPrepSequential Extraction Kit</b> , 5–15 preps	Z50-00011	<b>ProteinChip SELDI System</b> , Enterprise Edition, 115 V
170-2926	<b>Model491 Prep Cell</b> , 100/120 V	Z50-00013	<b>ProteinChip SELDI System</b> , Personal Edition, 115 V
170-2927	<b>Model 491 Prep Cell</b> , 220/240 V	Z50-00021	<b>ProteinChip SELDI System</b> , Enterprise Edition, 230 V
170-2800	<b>MicroRotorforCell Kit</b> , 100/120 V	Z50-00023	<b>ProteinChip SELDI System</b> , Personal Edition, 230 V
170-2801	<b>MicroRotorfor Cell Kit</b> , 220/240 V	Varies	<b>ProteinChip Arrays</b>
170-2802	<b>MicroRotorforSystem</b> , 100/120 V, includes kit with PowerPac HV power supply	Varies	<b>ProteinChip Energy Absorbing Molecules (EAMs)</b>
170-2803	<b>MicroRotorforSystem</b> , 220/240 V, includes kit with PowerPac HV power supply	C10-00001	<b>ProteinChip Protein Calibrant Kit</b>
CFB-3120	<b>MiniOpticon Real-Time PCR System</b> , includes optical housing, MJ Mini thermal cycler, analysis software	C10-00002	<b>ProteinChip Peptide Calibrant Kit</b>
170-9780	<b>iQ5Multicolor Real-Time PCR Detection System</b> , includes iCycler base, optics module, software CD-ROM, 5 installed filter sets, 96-well reaction module, calibration solutions, optical-quality 96-well PCR plates, Microseal 'B' seals, communication cables, power cord, quick reference cards, instructions	<b>Validation</b>	
176-0100	<b>ProteOnXPR36 Protein Interaction Array System</b>	165-4000	<b>PROTEANIEF System</b> , 90–240 VAC
176-5011	<b>ProteOn GLC Sensor Chip</b>	170-9460	<b>Molecular Imager PharosFX Plus System</b> , PC or Mac, includes Quantity One software
176-5012	<b>ProteOn GLM Sensor Chip</b>	170-3360	<b>siLentFect Lipid Reagent for RNAi</b> , 0.5 ml
176-5021	<b>ProteOn NLC Sensor Chip</b>	170-3350	<b>TransFectin Lipid Reagent</b> , 0.5 ml
176-1010	<b>ProteOn One-Shot Kinetics Kit</b>	165-2660	<b>GenePulser Xcell Total System</b> , for mammalian and microbial cells
176-1020	<b>ProteOnMultiple Protein Interaction Kit</b>	165-2088	<b>Gene Pulser/MicroPulser Cuvettes</b> , 0.4 cm gap, 50
176-1030	<b>ProteOn Protein-Small Molecule Kit</b>	170-9300	<b>FPQuest™ Software</b>
620-1009	<b>ProfiniaProtein Purification System</b> , includes cleaning tray, inline filter pack, 2 x 50 ml sample lids, 2 x 15 ml sample lids, bottle starter pack, waste/diluent bottle set, Profinia software	Varies	<b>InfoQuest™ FP Software</b>
156-0121	<b>Profinity IMAC Uncharged Resin</b> , 10 ml	Mac is a trademark of Apple Computer, Inc.	
156-0131	<b>Profinity IMAC Ni-Charged Resin</b> , 10 ml	 LabChip and the LabChip logo are trademarks of Caliper Life Sciences, Inc. Bio-Rad Laboratories, Inc. is licensed by Caliper Life Sciences, Inc. to sell products using the LabChip technology for research use only.	
732-4612	<b>Bio-Scale Mini Profinity IMAC Cartridge</b> , 1 x 5 ml	Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applera's United States Patent No. 6,814,934 B1 for use in research and for all other fields except the fields of human diagnostics and veterinary diagnostics.	
732-4622	<b>Bio-Scale Mini Profinity GST Cartridge</b> , 1 x 5 ml	Purification of fusion proteins may require a license from third parties.	

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