

Ordering Information

ProteOn™ XPR36 System

The ProteOn XPR36 system is an optical biosensor capable of simultaneously measuring 36 individual molecular interactions. It integrates a high-efficiency crisscross microfluidics system with a high-sensitivity optical system to generate data over the 6 x 6 interaction array, analyzing up to six ligands with a panel of six analytes. XPR technology, a unique approach to SPR multiplexing, greatly improves the efficiency and flexibility of your experimental design, enabling you to run more experiments in a shorter period of time. The ProteOn XPR36 workflow is guided by the ProteOn Manager™ software — an easy-to-use and intuitive package that employs a flexible, guided approach to instrument control, experimental setup, and data analysis; it also features tools for protocol creation and data analysis that get you your results faster. The ProteOn XPR36 system includes all components for successful and efficient protein interaction analysis — instrumentation, software, sensor chips, buffers and reagents, and protocol development kits.



Catalog #	Description
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176-0100	ProteOn XPR36 Protein Interaction Array System
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	ProteOn XPR36 Protein Interaction Array System. 100–240 V, includes ProteOn XPR36 instrument, 2 licensed copies of ProteOn Manager software, controller and display, communication cable, sample rack, rack needle set, microplate needle set, collection tank, choice of 2 sensor chips, One-shot Kinetics™ kit, maintenance kit, 2 bottles of PBS/Tween running buffer, chip normalization solution, 100 sample vials, 25 microplates with standard wells, 50 sheets of microplate sealing film, instruction manual
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ProteOn Protocol Development Kits



One-shot Kinetics™ Kit

The interaction between IL-2 cytokine and an IL-2 antibody is used to demonstrate a detailed kinetic analysis in a single injection cycle (One-shot Kinetics™). The kit also demonstrates a useful method for controlling ligand immobilization levels during protocol development and optimization.

Catalog #	Description
176-1010	ProteOn One-shot Kinetics Kit , includes IL-2/IL-2 antibody pair, GLC sensor chip, amine coupling kit, 50 ml acetate buffer, pH 4.5
176-5011	ProteOn GLC Sensor Chip , for general amine coupling, compact polymer matrix layer with binding capacity of approximately one protein monolayer
176-2410	ProteOn Amine Coupling Kit , includes EDAC (EDC), sulfo-NHS, ethanolamine HCl
176-2121	ProteOn Acetate Buffer, pH 4.5 , 10 mM sodium acetate, 50 ml



Protein-Small Molecule Kit

The interaction between carbonic anhydrase II and 4-carboxybenzene sulfonamide (CBS) is used to demonstrate the capability of the ProteOn XPR36 system to detect low molecular weight analytes.

Catalog #	Description
176-1030	ProteOn Protein-Small Molecule Kit , includes carbonic anhydrase II/CBS pair, GLM sensor chip, amine coupling kit, 50 ml acetate buffer, pH 5.0
176-5012	ProteOn GLM Sensor Chip , for general amine coupling, polymer matrix layer with intermediate binding capacity
176-2410	ProteOn Amine Coupling Kit , includes EDAC (EDC), sulfo-NHS, ethanolamine HCl
176-2122	ProteOn Acetate Buffer, pH 5.0 , 10 mM sodium acetate, 50 ml
176-2230	ProteOn Sodium Hydroxide Solution , 50 mM, 50 ml



Multiple Protein Interaction Kit

The interaction between TEM1 β -lactamase and β -lactamase inhibitor protein (BLIP) is used to demonstrate the power of the ProteOn XPR36 system to produce a detailed kinetic analysis of multiple simultaneous interactions in a single injection cycle and to map protein interfaces.

Catalog #	Description
176-1020	ProteOn Multiple Protein Interaction Kit , includes TEM/BLIP protein set, GLC sensor chip, amine coupling kit, 50 ml acetate buffer, pH 4.0
176-5011	ProteOn GLC Sensor Chip , for general amine coupling, compact polymer layer with binding capacity of approximately one protein monolayer
176-2410	ProteOn Amine Coupling Kit , includes EDAC (EDC), sulfo-NHS, ethanolamine HCl
176-2120	ProteOn Acetate Buffer, pH 4.0 , 10 mM sodium acetate, 50 ml

ProteOn Sensor Chips, Reagents, Buffers, and Solutions



ProteOn Sensor Chips

The ProteOn family of sensor chips has outstanding kinetic response characteristics, high binding capacities, sensitivity to detect low molecular weight analytes, uniform spot-to-spot response, minimal drift, bar codes, and long-term storage stability. Each ProteOn sensor chip is suitable for various applications, including the following:

- ProteOn GLC sensor chip — for protein-protein interaction analysis
- ProteOn GLM sensor chip — for protein–small molecule and protein-protein interaction analysis
- ProteOn GLH sensor chip — for protein–small molecule interaction analysis
- ProteOn NLC sensor chip — for DNA-protein and protein-protein interaction analysis
- ProteOn HTG sensor chip — for protein-protein and protein-peptide interaction analysis
- ProteOn HTE sensor chip — for protein–small molecule interaction analysis
- ProteOn LCP sensor chip — for capturing lipid assemblies for lipid-protein, lipid–small molecule, and membrane protein-protein interaction analysis

Catalog #	Description
176-5011	ProteOn GLC Sensor Chip , for general amine coupling, compact polymer matrix layer with binding capacity of approximately one protein monolayer
176-5012	ProteOn GLM Sensor Chip , for general amine coupling, polymer matrix layer with intermediate binding capacity
176-5013	ProteOn GLH Sensor Chip , for general amine coupling, polymer matrix layer with highest binding capacity
176-5021	ProteOn NLC Sensor Chip , for binding of biotinylated molecules, contains NeutrAvidin immobilized to GLC layer
176-5031	ProteOn HTG Sensor Chip , for capturing of histidine-tagged proteins, polymer matrix layer contains novel tris-NTA complexes with compact binding capacity
176-5033	ProteOn HTE Sensor Chip , for capturing of histidine-tagged proteins, polymer matrix layer contains novel tris-NTA complexes with higher binding capacity
176-5041	ProteOn LCP Sensor Chip , for capturing of lipid assemblies such as liposomes; for use with the ProteOn LCP capturing reagent kit



ProteOn Amine Coupling Reagents

ProteOn amine coupling reagents are used for coupling ligands that have amine groups (proteins, nucleic acids) to the surface carboxyl groups of the ProteOn general layer sensor chips (GLC, GLM, and GLH). Reagents are provided in amounts sufficient for 60 intensive activations or 600 light activations. See product insert for details.

Catalog #	Description
176-2410	ProteOn Amine Coupling Kit , includes EDAC (EDC), sulfo-NHS, ethanolamine HCl
176-2450	ProteOn Ethanolamine HCl , 1 M, 40 ml



ProteOn HTG and HTE Capturing Kits

The ProteOn HTG and HTE capturing kits are used for capturing histidine-tagged targets. The ProteOn HTG reagent kit is designed for easy activation and regeneration of the ProteOn HTG sensor chip. This kit contains sufficient reagents for more than 80 injection cycles. See product insert for details.

Catalog #	Description
176-2500	ProteOn HTG Capturing Kit , includes 1 ProteOn HTG sensor chip and 1 ProteOn HTG and HTE reagent kit
176-5031	ProteOn HTG Sensor Chip , for capturing of histidine-tagged proteins, polymer matrix layer contains novel tris-NTA complexes with compact binding capacity
176-2510	ProteOn HTG and HTE Reagent Kit , includes 10 ml NiSO ₄ (activation solution) and 50 ml EDTA (regeneration solution); sufficient reagents for more than 80 cycles
176-2600	ProteOn HTE Capturing Kit , includes 1 ProteOn HTE sensor chip and 1 ProteOn HTG and HTE reagent kit
176-5033	ProteOn HTE Sensor Chip , for capturing of histidine-tagged proteins, polymer matrix layer contains novel tris-NTA complexes with higher binding capacity



ProteOn Lipid/Membrane Protein Application Kits

The ProteOn liposome capturing kit and the ProteOn GLC lipid kit are designed for capturing lipid assemblies (such as liposomes) for lipid-protein, lipid–small molecule, and membrane protein-protein interaction analyses.

See product inserts for details.

Catalog #	Description
176-2300	ProteOn Liposome Capturing Kit , includes 1 ProteOn LCP sensor chip, 1 ProteOn LCP capturing reagent kit, and ProteOn lipid modification conditioning solution
176-5041	ProteOn LCP Sensor Chip , for capturing of lipid assemblies such as liposomes; for use with the ProteOn LCP capturing reagent kit
176-2310	ProteOn LCP Capturing Reagent Kit , reagents for capturing lipid assemblies such as liposomes; for use with the ProteOn LCP sensor chip
176-2350	ProteOn GLC Lipid Kit , includes 1 ProteOn GLC sensor chip and 1 ProteOn lipid modification kit
176-5011	ProteOn GLC Sensor Chip , for general amine coupling, compact polymer matrix layer with binding capacity of approximately one protein monolayer
176-2360	ProteOn Lipid Modification Kit , includes ProteOn lipid modification conditioning solution and ProteOn lipid modification solution
176-2361	ProteOn Lipid Modification Conditioning Solution , for cleaning and stabilizing the chip surface before capturing lipid assemblies such as liposomes, 45 ml
176-2365	ProteOn Lipid Modification Solution , for modifying the lipophilicity of the ProteOn GLC sensor chip, 10 ml



ProteOn Immobilization Buffers

ProteOn immobilization buffers (pH 4.0–5.5) are designed for dilution and immobilization of protein samples to ProteOn sensor chips. Each buffer is provided in amounts sufficient for 100 ligand immobilizations.

Catalog #	Description
176-2110	ProteOn Immobilization Buffer Kit , includes one of each sodium acetate buffer (pH 4.0, 4.5, 5.0, 5.5)
176-2120	ProteOn Acetate Buffer, pH 4.0 , 10 mM sodium acetate, 50 ml
176-2121	ProteOn Acetate Buffer, pH 4.5 , 10 mM sodium acetate, 50 ml
176-2122	ProteOn Acetate Buffer, pH 5.0 , 10 mM sodium acetate, 50 ml
176-2123	ProteOn Acetate Buffer, pH 5.5 , 10 mM sodium acetate, 50 ml



ProteOn Regeneration and Conditioning Buffers and Solutions

ProteOn regeneration buffers and solutions are ideal for a wide variety of regeneration conditions and are available individually or as a complete kit.

Catalog #	Description
176-2210	ProteOn Regeneration and Conditioning Kit , includes one of each glycine buffer (pH 1.5, 2.0, 2.5, 3.0), sodium hydroxide solution, SDS solution, hydrochloric acid solution, phosphoric acid solution, sodium chloride solution
176-2220	ProteOn Glycine Buffer, pH 1.5 , 10 mM glycine HCl, 50 ml
176-2221	ProteOn Glycine Buffer, pH 2.0 , 10 mM glycine HCl, 50 ml
176-2222	ProteOn Glycine Buffer, pH 2.5 , 10 mM glycine HCl, 50 ml
176-2223	ProteOn Glycine Buffer, pH 3.0 , 10 mM glycine HCl, 50 ml
176-2230	ProteOn Sodium Hydroxide Solution , 50 mM, 50 ml
176-2240	ProteOn SDS (Sodium Dodecyl Sulfate) Solution , 0.5%, 50 ml
176-2250	ProteOn Hydrochloric Acid Solution , 100 mM, 50 ml
176-2260	ProteOn Phosphoric Acid Solution , 0.85%, 50 ml
176-2270	ProteOn Sodium Chloride Solution , 1 M, 50 ml



ProteOn Running Buffers

ProteOn running buffers are supplied in 2 L bottles, which are sufficient for approximately 2 weeks of daily operation.

Catalog #	Description
176-2710	ProteOn PBS , phosphate buffered saline, pH 7.4, 2 L
176-2720	ProteOn PBS/Tween , phosphate buffered saline, pH 7.4, 0.005% Tween 20, 2 L
176-2730	ProteOn PBS/Tween/EDTA , phosphate buffered saline, pH 7.4, 0.005% Tween 20, 3 mM EDTA, 2 L



ProteOn Chip Normalization Solution

ProteOn chip normalization solution is used for normalization of ProteOn sensor chip surfaces. Each 100 ml bottle is sufficient for 6 months of daily use.

Catalog #	Description
176-2810	ProteOn Chip Normalization Solution , 50% glycerol, 100 ml

ProteOn Maintenance Kits



ProteOn Maintenance and Postexperiment Cleaning Kits

ProteOn maintenance kits contain the necessary solutions and chips for weekly maintenance or postexperiment cleaning of the ProteOn XPR36 system. Chips and solutions are available individually or together in kit format.

Catalog #	Description
176-4300	ProteOn Maintenance Kit , contains 1 maintenance and 2 cleaning chips, 2 L 2% Contrad 70, 2 L 70% isopropyl alcohol; for ProteOn system maintenance
176-4115	ProteOn Maintenance Solution 1 , 2 L, 2% Contrad 70; for ProteOn XPR36 system maintenance
176-4116	ProteOn Maintenance Solution 2 , 2 L, 70% isopropyl alcohol; for ProteOn system maintenance
176-4117	ProteOn Postexperiment Cleaning Kit , contains 50 ml 20 mM HCl and 50 ml 2% Contrad 70; for ProteOn system postexperiment cleaning
176-4118	ProteOn Postexperiment Cleaning Solution 1 , 50 ml, 2% Contrad 70; for ProteOn system postexperiment cleaning
176-4119	ProteOn Postexperiment Cleaning Solution 2 , 50 ml, 20 mM HCl; for ProteOn system postexperiment cleaning
176-2520	ProteOn Maintenance and Postexperiment Cleaning Kit , contains 1 maintenance and 2 cleaning chips, 2 L 2% Contrad 70, 2 L 70% isopropyl alcohol, 50 ml 20 mM HCl, and 50 ml 2% Contrad 70; for ProteOn system maintenance and postexperiment cleaning
176-5100	ProteOn MNT Maintenance Chip , for use in maintenance protocols
176-5110	ProteOn CLN Cleaning Chip , for use in microfluidics network cleaning protocol

ProteOn XPR36 Regulatory Tools



Tools are available with the ProteOn XPR36 system to facilitate regulatory compliance in drug discovery and development workflows. ProteOn Manager software, Security Edition and the ProteOn XPR36 installation qualification/operation qualification (IQ/OQ) kit assist the user in adhering to the good practices rulings observed by the pharmaceutical industry.

ProteOn Manager Software, Security Edition



Compliance features enable the user to turn on security features that comply with U.S. FDA 21 CFR Part 11 regulations. Features include audit trails, electronic signatures, data validation, user log-ins and permissions, and closed-system security. Signatures can be verified, ensuring data consistency within the instrument.

ProteOn XPR36 Installation Qualification/Operation Qualification (IQ/OQ) Kit

The ProteOn XPR36 IQ/OQ kit is designed to test critical system functions and to ensure the reliability and consistency of system performance. Key features include: intuitive wizard-driven software, printable electronic reports for document control, electronic log of IQ/OQ and test results, ready-to-use reagents, and sensor chip for testing system performance with unattended operation.

Catalog #	Description
176-4225	ProteOn XPR36 Regulatory Tools Package , includes ProteOn Manager Software, Security Edition and ProteOn XPR36 IQ/OQ kit
176-0210	ProteOn Manager Software , Security Edition
176-4200	ProteOn XPR36 IQ/OQ Kit , includes ProteOn XPR36 software, ProteOn Manager software, ProteOn operation qualification kit, user manual
176-4220	ProteOn Operation Qualification Kit , includes ProteOn OQ kit 1, ProteOn OQ kit 2, GLC sensor chip

ProteOn Accessories and Consumables



ProteOn Sample Rack

Each ProteOn sample rack holds 72 ProteOn sample vials with pierceable caps. Additional sample racks are useful for advance preparation or cold storage of samples and reagents.

Catalog #	Description
176-6000	ProteOn Sample Rack , holds 72 sample vials



ProteOn Standard Microplates

ProteOn microplates are compatible with the ProteOn autosampler platform. Each microplate is in a standard 96-well array. The volume of each well is 350 µl.

Catalog #	Description
176-6020	ProteOn Standard Microplates , 96 wells, 25



ProteOn Needles

ProteOn needles come as a set of six and accommodate the ProteOn sample rack needle arm and the ProteOn microplate needle arm.

Catalog #	Description
176-6003	ProteOn Needles , 6



ProteOn Deep-Well Microplates

ProteOn deep-well microplates are compatible with the ProteOn autosampler platform. Each microplate is in a standard 96-well array. The volume of each well is 2 ml.

Catalog #	Description
176-6023	ProteOn Deep-Well Microplates , 96 wells, 5



ProteOn Sample Vials

ProteOn sample vials are compatible with the ProteOn sample rack. Each vial is 1.5 ml and includes a pierceable cap to prevent evaporation.

Catalog #	Description
176-6010	ProteOn Sample Vials , 1.5 ml with pierceable caps, 100



ProteOn Microplate Sealing Film

ProteOn microplate sealing film is ideal for covering standard ProteOn microplates and deep-well plates to prevent evaporation while running a protocol or during storage. The sealing film is easily applied to each microplate, is pierceable, and is available in packs of 50 sheets.

Catalog #	Description
176-6040	ProteOn Microplate Sealing Film , 50 sheets

NeutrAvidin is a trademark of Thermo Fisher Scientific Inc. Tween is a trademark of ICI Americas Inc.

The ProteOn XPR36 protein interaction array system is covered by Bio-Rad patents, including United States patent numbers 8,111,400, 8,105,845, 7,999,942, and 7,443,507.

This product or portions thereof is manufactured and sold under license from GE Healthcare under United States patent numbers 5,492,840, 5,554,541, 5,965,456, 7,736,587, and 8,021,626, and any international patents and patent applications claiming priority.



**Bio-Rad
Laboratories, Inc.**

Life Science
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