High-Throughput Real-Time PCR Solutions

Efficiency and Flexibility at Every Step of Real-Time PCR
HIGH THROUGHPUT. FLEXIBILITY. RELIABILITY.

Bio-Rad’s high-throughput real-time PCR products leverage more than 30 years of expertise to support your application and workflow.

- Genetic Disease Research
- Oncology Research
- Stem Cell Research
- Pharmacogenomics
- Pathogen Detection
- Agricultural Biotechnology
- Lead Screening
- Lead Optimization
- Target Discovery
- Target Validation
- Biomarker Studies
- CRISPR Validation
MAXIMIZED THROUGHPUT. REDUCED MANUAL INTERVENTION.
Traditional real-time PCR workflows involve multiple unreliable and labor-intensive steps that limit throughput, process efficiency, and scalability. We provide a suite of products that simplifies and accelerates real-time PCR to permit true high-throughput gene expression profiling and quantification.
Twice the throughput. Half the footprint.
The CFX Automation System II can operate two CFX Real-Time PCR Detection Systems simultaneously, doubling throughput and saving valuable benchspace, compared to other automation systems.

Flexible System Configurations

CFX Real-Time PCR Detection Systems and CFX Maestro Software provide:
- Laboratory information management system (LIMS) and automation compatibility
- Barcode-specific cycling protocols that can be assigned to each plate, with or without LIMS integration
- Interchangeable 96- and 384-well reaction modules for real-time PCR
- Customized run setup and data analysis
- Multi-instrument connectivity
- 5-target multiplexing
- Remote notification of run completion with attached data file

Quantitative PCR Needs

<table>
<thead>
<tr>
<th>Reaction Module</th>
<th>Standard Throughput</th>
<th>Large Reaction Volume</th>
<th>High Throughput</th>
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<tbody>
<tr>
<td>CFX96</td>
<td>CFX96 Deep Well</td>
<td>CFX384</td>
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</table>

From Plates to Analyzed Data in Three Clicks

1. **Download run files**
2. **Load run files into automation software**
3. **Complete statistical analysis with CFX Maestro Software**
FLEXIBLE AND CUSTOMIZABLE

FLEXIBLE SYSTEMS. CUSTOMIZABLE ASSAYS.
Real-time PCR reagent, instrument, and software requirements are as diverse as the products they help innovate. To address this, we have built flexibility, customizability, and time-saving solutions into our entire product line to maximize your throughput and workflow.

Supermixes for Every Sample
Our SsoAdvanced Supermixes utilize patented Sso7d fusion polymerase technology, which increases processivity and inhibitor tolerance to ensure superior performance even on challenging samples. Supermixes are available as custom formulations and in custom sizes. Products include:
- SsoAdvanced Universal SYBR® Green and Probes Supermixes
- SsoAdvanced Universal Inhibitor-Tolerant SYBR® Green Supermix
- SsoAdvanced PreAmp Supermix
- Reliance One-Step Multiplex Supermix
- SingleShot Cell Lysis RT-qPCR Kits

Customizable Real-Time PCR Assays and Arrays
Bio-Rad’s PrimePCR Gene Expression Assays are expertly designed, and panels are curated to include only biologically relevant genes. PrimePCR Assays are available as:
- SYBR® Green– and probe-based individual assays
- Custom predesigned disease and pathway panels
- Wet-lab validated and next-generation sequencing verified assays for the human, rat, and mouse genomes
- Expertly in silico–designed assays or a range of other model organisms

Reliable real-time PCR data from even the most challenging samples. SsoAdvanced Universal Inhibitor-Tolerant SYBR® Green Supermix is a high-performance real-time PCR supermix that allows generation of superior data using crude lysates from plants, seeds, cells, bacteria, and formalin-fixed paraffin-embedded samples.

Comprehensive Portfolio of Consumables
Our line of robotics-compatible real-time PCR consumables was designed specifically with automation in mind. Products include:
- Temperature-stable supermixes
- Customizable, warp-free Hard-Shell PCR Plates and accessories
- One-step reverse transcription quantitative PCR (RT-qPCR) kits
- Kits for RT-qPCR directly from lysate

From tissue culture to real-time PCR without time-consuming RNA purification steps. Prepare real-time PCR–compatible cell lysates in a single 10 min step using SingleShot Cell Lysis RT-qPCR Kits.

* U.S. patents 6,627,424; 7,541,170; and 7,560,260.
INSTRUMENT VALIDATION AND QUALIFICATION

Bio-Rad provides a comprehensive suite of products and services that ensures your instruments are cared for and perform to our standard of quality, run after run.

On-Site Thermal Validation Services
To ensure optimal performance of our CFX Real-Time PCR Detection Systems, a Bio-Rad trained and certified service engineer will:
- Provide a thermal validation report clearly documenting instrument performance
- Assess PCR block accuracy, thermal uniformity, and instrument ramp rate
- Confirm thermal block settling times and overshoot are within specifications

CFX Qualification Plate
The CFX Qualification Plate provides a reliable and fast way to qualify any CFX Real-Time PCR Detection System. These sealed and frozen instrument qualification plates contain predispensed reagents and offer:
- 1-click pass/fail results
- Easy integration into quality control procedures
- Convenient troubleshooting

On-Site Installation Qualification (IQ) and Operational Qualification (OQ) Services
A certified service engineer documents that instruments are installed and functioning properly and ensures that instruments will generate reliable and reproducible data.

Bio-Rad’s Expert Care Service
Bio-Rad offers a no-contract Repair Plan and a wide variety of individualized service plans.
- Choose a preconfigured plan or design your own custom plan with MyPlan for maximum flexibility
- Use on-site and off-site services as needed
- Consult our team of dedicated experts who have direct access to the latest procedures, parts, tools, and factory-trained engineers to ensure the best service for your instruments

Visit bio-rad.com/support/expertcare for more information.

Care Plan Entitlements

<table>
<thead>
<tr>
<th>Service</th>
<th>Complete Support Plan</th>
<th>Proactive Plan</th>
<th>Performance Plan</th>
<th>Extended Coverage Plan</th>
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<td>Repairs</td>
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<td>PM¹</td>
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<td>Parts (repair)</td>
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<td>Priority response⁴</td>
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<td>Remote diagnostics⁵</td>
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<td>Technical support</td>
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<td>Part discount⁶</td>
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¹ The number of preventive maintenance (PM) visits will be in line with manufacturer’s recommendations. Additional PM visits can be added at agreed-upon price levels. PM is not available in all locations.
² Shipping paid by Bio-Rad (not available in all regions).
³ Labor and travel covered for preventive maintenance and performance check activities only with the Proactive and Performance Plans, respectively.
⁴ Priority response guaranteed over non-contract customers.
⁵ Go to bio-rad.com/support/RemoteDiagnosticServices to learn more about remote service and support.
⁶ Discount applies for service performed by Bio-Rad outside of the PM service. Note: Services may vary by region. Please contact your local Bio-Rad representative for details of availability.
RELIABLE PERFORMANCE. REPRODUCIBLE RESULTS.
From the solid-state optical technology that allows our real-time PCR detection systems to perform optimally year after year to the algorithms that ensure that all of the most relevant gene targets are represented in each PrimePCR Panel, our real-time PCR portfolio provides you confidence in reagents, technology, and results.
Ordering Information

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
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<tbody>
<tr>
<td>1845075</td>
<td>CFX Automation System II for Real-Time PCR Systems, includes plate handler, barcode scanner, mounting plate, automation software</td>
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<tr>
<td>1855195</td>
<td>CFX96 Touch Real-Time PCR Detection System, includes C1000 Touch Thermal Cycler Chassis, CFX96 Optical Reaction Module, cables</td>
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<tr>
<td>1855485</td>
<td>CFX384 Touch Real-Time PCR Detection System, includes C1000 Touch Thermal Cycler Chassis, CFX384 Optical Reaction Module, cables</td>
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<tr>
<td>1854095</td>
<td>CFX96 Touch Deep Well Real-Time PCR Detection System, includes C1000 Touch Thermal Cycler Chassis, CFX96 Deep Well Optical Reaction Module, cables</td>
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<tr>
<td>1814000</td>
<td>PX1 PCR Plate Sealer, includes heat sealing instrument, plate support block that holds 96- and 384-well plates, sealing frame, power cord</td>
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Reagents and Consumables

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<tr>
<th>Catalog #</th>
<th>Description</th>
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<tr>
<td>1725085</td>
<td>SingleShot SYBR® Green Kit for Cell Lysis and RT-qPCR, 100 x 50 μl reactions</td>
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<tr>
<td>1725090</td>
<td>SingleShot Probes Kit for Cell Lysis and RT-qPCR, 100 x 50 μl reactions</td>
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<tr>
<td>1725271</td>
<td>SsoAdvanced Universal SYBR® Green Supermix, 5 x 1 ml vials, 2x qPCR mix, contains dNTPs, Sso7d fusion polymerase, MgCl₂, SYBR® Green I, universal reference dye, for 500 x 20 μl reactions</td>
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<tr>
<td>1725281</td>
<td>SsoAdvanced Universal Probes Supermix, 5 x 1 ml vials, 2x qPCR mix, contains dNTPs, Sso7d fusion polymerase, MgCl₂, stabilizers, universal reference dye, for 500 x 20 μl reactions</td>
</tr>
<tr>
<td>1725151</td>
<td>iTaq Universal SYBR® Green One-Step Kit, 5 x 1 ml vials, one-step RT-PCR kit, includes 2x one-step SYBR® Green reaction mix containing iTaq DNA Polymerase, buffers, and universal reference dye; iScript Reverse Transcriptase; and nuclease-free water, for 500 x 20 μl reactions</td>
</tr>
<tr>
<td>12010220</td>
<td>Reliance One-Step Multiplex Supermix, 5 ml (5 x 1 ml vials), 1,000 x 20 μl reactions, 4x RT-qPCR supermix, contains Reliance Reverse Transcriptase, blend of high-performance DNA polymerases including Sso7d fusion polymerase, universal reference dye, stabilizer, and reaction buffer, for 1,000 x 20 μl reactions</td>
</tr>
<tr>
<td>12010221</td>
<td>Reliance One-Step Multiplex Supermix, 10 ml (2 x 5 ml vials), 2,000 x 20 μl reactions, 4x RT-qPCR supermix, contains Reliance Reverse Transcriptase, blend of high-performance DNA polymerases including Sso7d fusion polymerase, universal reference dye, stabilizer, and reaction buffer, for 2,000 x 20 μl reactions</td>
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<tr>
<td>MSB1001</td>
<td>Microseal® B™ Adhesive Seals, optically clear seals for PCR plates, 100</td>
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<tr>
<td>HSP905</td>
<td>Hard-Shell 8-Well PCR Plates, thin-wall, skirted, clear shell/white well, barcoded, 50</td>
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<tr>
<td>HSP901</td>
<td>Hard-Shell 96-Well PCR Plates, low-profile, thin-wall, skirted, white shell/clear well, barcoded, 50</td>
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<tr>
<td>HSP995</td>
<td>Hard-Shell 96-Well PCR Plates, low-profile, thin-wall, skirted, white shell/white well, barcoded, 50</td>
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<tr>
<td>1845098</td>
<td>CFX Qualification Plate, predispensed 96-well plate for performance validation</td>
</tr>
<tr>
<td>1845099</td>
<td>CFX Qualification Plate, predispensed 384-well plate for performance validation</td>
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Visit bio-rad.com/web/qPCRHighThroughput for more information.

Want to order custom PCR primer or probe assays? Let our search tools find the right assay for you!

Visit bio-rad.com/web/PrimePCR for more information.

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Hard-Shell Plates are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 7,347,977; 6,340,589; and 6,528,302.

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