

Automation Solutions for Real-Time PCR

Increased Confidence and Performance at Every Step of Real-Time PCR



- 
- 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

EFFICIENCY. FLEXIBILITY. RELIABILITY.

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

MAXIMIZED EFFICIENCY. REDUCED MANUAL INTERVENTION.

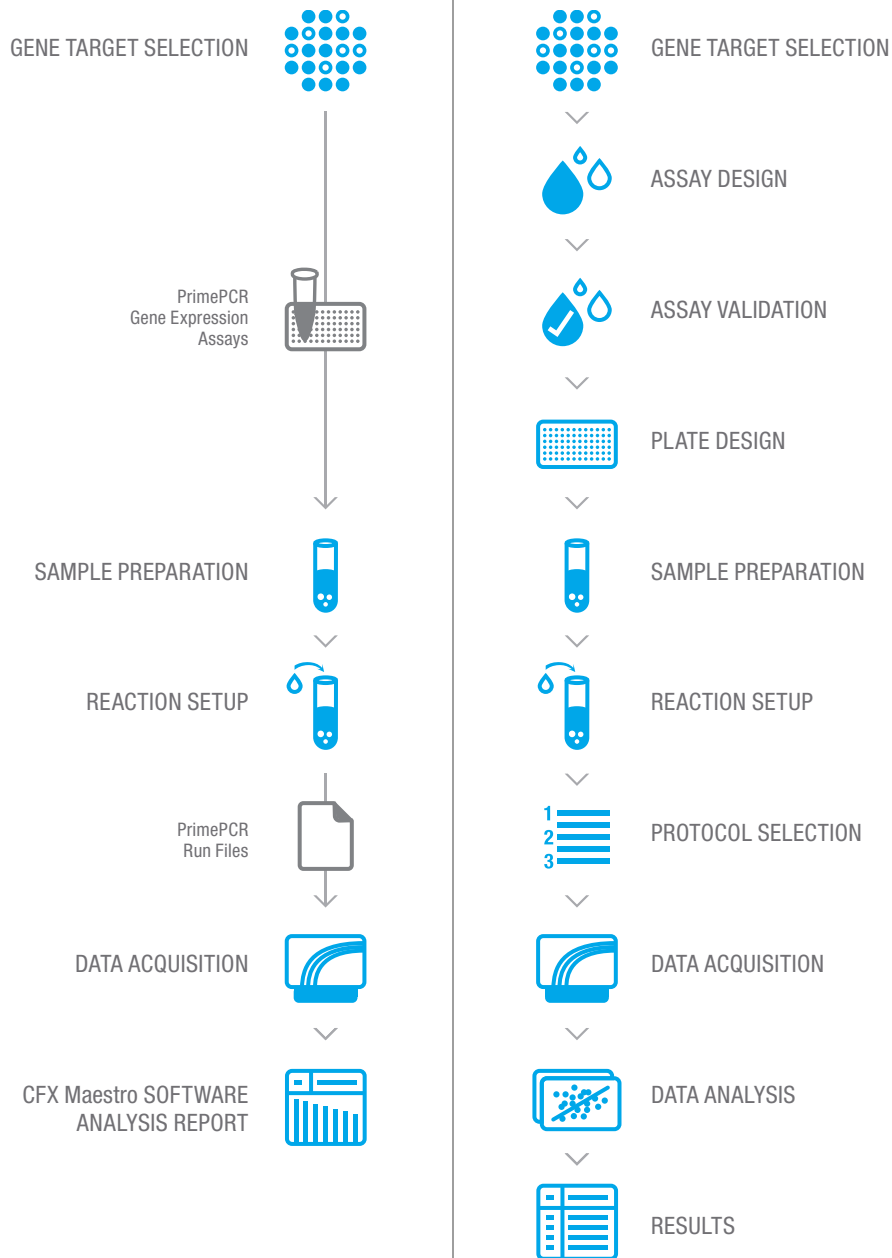
Traditional real-time PCR workflows involve multiple unreliable and labor-intensive steps that limit throughput, process efficiency, and scalability. We provide a suite of products that simplify and accelerate real-time PCR to permit true high-throughput gene expression profiling and quantification.

BIO-RAD WORKFLOW

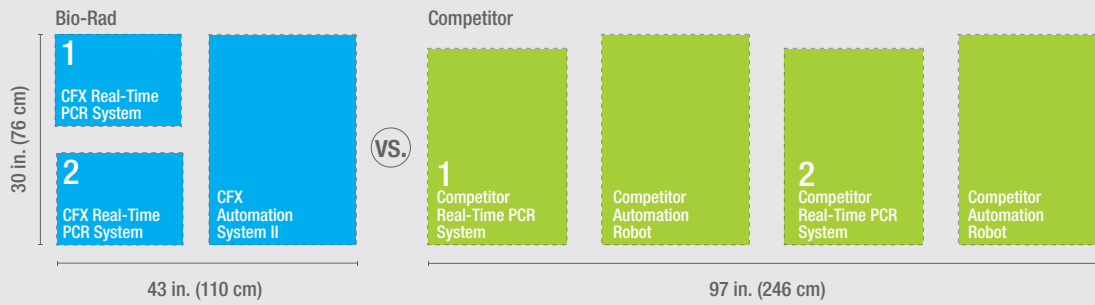
5 STEPS

VS.

10 STEPS



Benchspace Layout



Twice the throughput. Half the footprint.

The CFX Automation System II can operate two CFX Touch or CFX Connect Real-Time PCR Systems simultaneously, doubling throughput and saving valuable benchspace compared to other automation systems.

Powerful, Easy-to-Learn System

CFX Real-Time PCR 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
- CFX Maestro Software, Security Edition to support U.S. FDA 21 CFR Part 11 regulations
- Customized run setup and data analysis
- Multi-instrument control via CFX Maestro Software
- Up to 5-target multiplexing
- Remote notification of run completion with attached data file



Designed for Compatibility and Integration*

CFX Opus PCR Systems are automation and integration ready. CFX Maestro Software has an API that allows for integration with LIMS and configuration into other custom software solutions.

* CFX Opus is not compatible with CFX Automation System II.

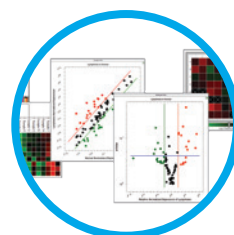
From Plates to Analyzed Data in Three Clicks



1 Download run files



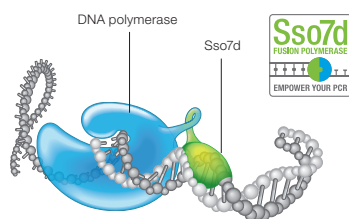
2 Load run files into automation software



3 Complete statistical analysis with CFX Maestro Software

FLEXIBLE 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.

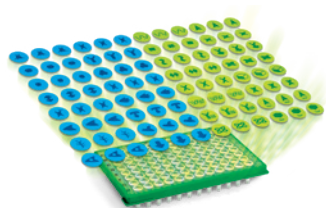


Supermixes for Every Sample

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

Visit bio-rad.com/AmplificationReagents for more information.



Customizable Real-Time PCR Assays and Arrays

Bio-Rad's PrimePCR Gene Expression Primers, Assays, and Arrays are expertly designed, and panels are curated to include only biologically relevant genes. This can help move your research forward by providing a well-accepted, highly sensitive, and cost-effective approach to gene expression research, and potentially enabling you to go from sample through data analysis in a single day. Products include:

- Predesigned SYBR® Green and probe detection chemistry, available for the human and mouse genomes
- Custom oligonucleotides for designing your own PCR primer or probe assay
- Wet-lab validation of every primer pair to guarantee performance
- A wide range of predesigned disease- and pathway-specific panels to include the most biologically relevant gene target

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



Comprehensive Portfolio of Plastics

Our line of robotics-compatible real-time PCR plastics was designed specifically with automation in mind. Products include:

- Warp-free Hard-Shell PCR Plates, a variety of plate seals, and accessories
- Automation-compatible barcoded plates that are designed for optimal fit and cycling performance
- Optical sealing film with a strong adhesive that's effective from -40 to 110°C, providing secure plate sealing during cycling and sample storage

Visit bio-rad.com/AmplificationPlastics for more information.

* 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 ensure your instruments are cared for and perform to our standard of quality, run after run.

- ✓ Thermal Validation Services
- ✓ IQ/OQ
- ✓ Qualification Plates
- ✓ Expert Care Services



On-Site Thermal Validation Services

To ensure optimal performance of our CFX Real-Time PCR Systems, a Bio-Rad trained and certified service engineer will:

- Assess PCR block accuracy, thermal uniformity, and instrument ramp rate
- Complete a rapid temperature cycling protocol mimicking an actual experiment to confirm that thermal block settling times are within specifications
- Provide accurate results you can trust that are National Institute of Standards and Technology (NIST) traceable

Visit bio-rad.com/ThermalValidation for more information.



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.

- Maximize instrument uptime with planned instrument qualification services that ensure your instruments are performing according to specifications
- Increase your confidence with frequent instrument validation that helps minimize loss of precious samples and valuable time associated with a malfunctioning instrument
- Remain compliant with official documentation that can aid in regulatory compliance requirements

Visit bio-rad.com/IQOQ for more information.

CFX Qualification Plate

The CFX Qualification Plate provides a reliable and fast way to qualify any CFX Real-Time PCR 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



Expert Care Service



Expert Care Service provides service and support to maintain your Bio-Rad equipment. Comprising skilled service engineers and technical experts, Expert Care Service ensures the highest performance of your equipment.

Secure workflow continuity and performance by choosing from comprehensive service contract plans, one-time repair services, preventive maintenance, equipment qualification, and validation services.

Visit bio-rad.com/ExpertCare for more information.

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 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.

Expertise

20 YEARS IN REAL-TIME PCR **30+** YEARS IN PCR

Reliability


1,000s OF CFX SYSTEMS INSTALLED IN **100+** COUNTRIES

Innovation

#1 MARKET LEADER IN DIGITAL PCR **#2** MARKET LEADER IN REAL-TIME PCR

1,000s OF Sso7d PUBLICATIONS

Ordering Information

Catalog #	Description	Catalog #	Description
Instruments			
1845075	CFX Automation System II for Real-Time PCR Systems , includes plate handler, barcode scanner, mounting plate, automation software	Plastics	
12011319	CFX Opus 96 Real-Time PCR System , includes integrated 96-well system, Ethernet cable, USB cable, and power cord	MSB1001	Microseal 'B' Adhesive Seals , optically clear seals for PCR plates, 100
17005940	CFX Opus 96 Real-Time PCR System with Starter Pack , includes integrated 96-well system; Ethernet cable; USB cable; power cord; Hard-Shell 96-Well PCR Plates, low-profile, thin-wall, skirted, white shell/clear well; SsoAdvanced Universal SYBR [®] Green Supermix, 2 x 1 ml; Microseal 'B' Adhesive Seals, pkg of 100; CFX Maestro Software	MSF1001	Microseal 'F' PCR Plate Seal , foil, pierceable, 100
12011452	CFX Opus 384 Real-Time PCR System , includes integrated 384-well system, Ethernet cable, USB cable, and power cord	HSP3905	Hard-Shell 384-Well PCR Plates , thin-wall, skirted, clear shell/white well, barcoded, 50
17005939	CFX Opus 384 Real-Time PCR System with Starter Pack , includes integrated 384-well system; Ethernet cable; USB cable; power cord; Hard-Shell 384-Well PCR Plates, thin wall, skirted, clear shell/white well; SsoAdvanced Universal SYBR [®] Green Supermix, 2 x 1 ml; Microseal 'B' Adhesive Seals, pkg of 100; CFX Maestro Software	HSP9901	Hard-Shell 96-Well PCR Plates , low-profile, thin-wall, skirted, white shell/clear well, barcoded, 50
1854095	CFX96 Touch Deep Well Real-Time PCR System , includes C1000 Touch Thermal Cycler Chassis, CFX96 Deep Well Optical Reaction Module, cables	HSP9955	Hard-Shell 96-Well PCR Plates , low-profile, thin-wall, skirted, white shell/white well, barcoded, 50
1855201	CFX Connect Real-Time PCR System , includes CFX Connect Thermal Cycler Chassis, CFX Connect Optical Reaction Module, USB cable	1845098	CFX Qualification Plate , predispensed 96-well plate for performance validation
1814000	PX1 PCR Plate Sealer , includes heat sealing instrument, plate support block that holds 96- and 384-well plates, sealing frame, power cord	1845099	CFX Qualification Plate , predispensed 384-well plate for performance validation
Software			
All software for Windows unless otherwise noted.			
12013758		12013758	CFX Maestro Software 2.0
12004128		12004128	CFX Maestro Software for Mac
12012832		12012832	CFX Maestro Software 2.0, Security Edition , 1 license
12013028		12013028	CFX Maestro Software 2.0, Security Edition , 5 licenses
12012834		12012834	CFX Maestro Software 2.0, Chinese Edition
12012833		12012833	CFX Maestro Software 2.0, Russian Edition
1845025		1845025	Precision Melt Analysis Software , 2 user licenses, data analysis software for all CFX Real-Time PCR Systems, 2 HASP HL keys, calibration kit
Reagents			
1725271	SsoAdvanced Universal SYBR[®] Green Supermix , 5 ml (5 x 1 ml vials), 500 x 20 µl reactions	Visit bio-rad.com/qPCRHighThroughput for more information.	
1725281	SsoAdvanced Universal Probes Supermix , 5 ml (5 x 1 ml vials), 500 x 20 µl reactions	Want to order custom PCR primer or probe assays? Let our search tools find the right assay for you!	
1725017	SsoAdvanced Universal Inhibitor-Tolerant SYBR[®] Green Supermix , 5 ml (1 x 5 ml vial), 500 x 20 µl reactions	Visit bio-rad.com/PrimePCR for more information.	
12010220	Reliance One-Step Multiplex Supermix , 5 ml (5 x 1 ml vials), 1,000 x 20 µl reactions	 <p>Bio-Rad's PCR reagents and analytical instruments are manufactured under an ISO 13485:2016 certified Quality Management System and are quality control tested to ensure consistent product performance you can trust.</p>	
12010221	Reliance One-Step Multiplex Supermix , 10 ml (2 x 5 ml vials), 2,000 x 20 µl reactions	<p>BIO-RAD, HARD-SHELL, and MICROSEAL are trademarks of Bio-Rad Laboratories, Inc. in certain jurisdictions.</p> <p>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.</p> <p>SYBR is a trademark of Thermo Fisher Scientific Inc. Bio-Rad Laboratories, Inc. is licensed by Thermo Fisher Scientific Inc. to sell reagents containing SYBR Green I for use in real-time PCR, for research purposes only.</p> <p>All trademarks used herein are the property of their respective owner.</p>	
1725151	iTaq Universal SYBR[®] Green One-Step Kit , 5 ml (5 x 1 ml vials), 500 x 20 µl reactions		
1725141	iTaq Universal Probes One-Step Kit , 5 ml (5 x 1 ml vials), 500 x 20 µl reactions		
1725160	SsoAdvanced PreAmp Supermix , 1.25 ml (1 x 1.25 ml vial), 50 x 50 µl reactions		
1725085	SingleShot SYBR[®] Green Kit for Cell Lysis and RT-qPCR , 100 x 50 µl reactions		
1725090	SingleShot Probes Kit for Cell Lysis and RT-qPCR , 100 x 50 µl reactions		

BIO-RAD

**Bio-Rad
Laboratories, Inc.**

Life Science
Group

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