

Specifications

Thermal Cycler

Chassis	CFX Connect
Maximum ramp rate	5°C/sec
Average ramp rate	3.3°C/sec
Heating and cooling method	Peltier
Lid	Heats up to 105°C
Temperature Range	0–100°C
Accuracy	±0.2°C of programmed target at 90°C
Uniformity	±0.4°C well-to-well within 10 sec of arrival at 90°C

Gradient

Operational range	30–100°C
Programmable span	1–24°C

Optical Detection

Excitation	3 filtered LEDs
Detection	3 filtered photodiodes
Range of excitation/emission wavelengths	450–580 nm
Sensitivity	Detects 1 copy of target sequence in human genomic DNA
Dynamic range	10 orders of magnitude

Scan time

All channels	12 sec
Single channel fast scan	3 sec

CFX Maestro Software

Operating systems	Windows 7 (64-bit), Windows 10 (64-bit), macOS Mojave 10.14 (for analysis only)
Memory	Minimum 4 GB
Data analysis modes	PCR quantification with standard curve Melt curve analysis Gene expression analysis by relative quantity (ΔCq) or normalized expression ($\Delta\Delta Cq$) with multiple reference genes and individual reaction efficiencies Data analysis options include bar chart, box and whisker plot, dot plot, clustergram, scatter plot, volcano plot Statistical analysis with <i>t</i> -tests and one-way ANOVA Multiple file gene expression analysis for comparison of an unlimited number of Cq values for multiplex studies Allelic discrimination End-point analysis
Image export	Image size: any Resolution: 72–600 dpi Image format: .jpg, .png, .bmp
Data export	Save, copy, and print all spreadsheets and data from right-click menu Export specified data in multiple formats Copy and paste into Microsoft Word, Excel, or PowerPoint file Customizable reports containing run settings, data graphs, and spreadsheets can be printed directly or saved as PDFs

Ordering Information

Catalog #	Description
Instruments	
1855200	CFX Connect Real-Time PCR System with Starter Package , includes CFX Connect Thermal Cycler Chassis, CFX Connect Optical Reaction Module, CFX Maestro Software, license for qbase+ Software, communication cable, reagents, consumables
1855201	CFX Connect Real-Time PCR System , includes CFX Connect Thermal Cycler Chassis, CFX Connect Optical Reaction Module, communication cable
1814000	PX1 PCR Plate Sealer , heat sealing instrument
1845075	CFX Automation System II , includes plate handler and barcode scanner, mounting plate, automation software
Software	
	All software for Windows unless otherwise noted.
12013758	CFX Maestro Software 2.0
12004128	CFX Maestro Software for Mac
12012832	CFX Maestro Software 2.0, Security Edition , 1 license
12013028	CFX Maestro Software 2.0, Security Edition , 5 licenses
12012834	CFX Maestro Software 2.0, Chinese Edition
12012833	CFX Maestro Software 2.0, Russian Edition
1845025	Precision Melt Analysis Software , includes 2 user licenses, data analysis software, 2 HASP HL keys, calibration kit
Reagents	
1708841	iScript Reverse Transcription Supermix , 400 μ l (4 x 100 μ l vials), 100 x 20 μ l reactions
1725035	iScript gDNA Clear cDNA Synthesis Kit , 100 x 20 μ l reactions
1725038	iScript Advanced cDNA Synthesis Kit , 100 x 20 μ l reactions
1708891	iScript cDNA Synthesis Kit , 100 x 20 μ l reactions
1725271	SsoAdvanced Universal SYBR® Green Supermix , 5 ml (5 x 1 ml vials), 500 x 20 μ l reactions
1725281	SsoAdvanced Universal Probes Supermix , 5 ml (5 x 1 ml vials), 500 x 20 μ l reactions
1725160	SsoAdvanced PreAmp Supermix , 1.25 ml (1 x 1.25 ml vial), 50 x 50 μ l reactions
12010220	Reliance One-Step Multiplex RT-qPCR Supermix , 5 ml (5 x 1 ml vials), 1,000 x 20 μ l reactions
12010221	Reliance One-Step Multiplex RT-qPCR Supermix , 10 ml (2 x 5 ml vials), 2,000 x 20 μ l reactions
1725120	iTaq Universal SYBR® Green Supermix , 2 ml (2 x 1 ml vials), 200 x 20 μ l reactions
1725151	iTaq Universal SYBR® Green One-Step Kit , 500 x 20 μ l reactions
1725130	iTaq Universal Probes Supermix , 2 ml (2 x 1 ml vials), 200 x 20 μ l reactions
1725141	iTaq Universal Probes One-Step Kit , 500 x 20 μ l reactions
Consumables	
HSP3805	Hard-Shell 384-Well Skirted PCR Plates , clear shell/white well for higher fluorescent signals, 50
MSB1001	Microseal 'B' Adhesive Seals , optically clear, 100
MSF1001	Microseal 'F' PCR Plate Seals , foil, pierceable, 100

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

Bustin SA et al. (2009). The MIQE guidelines: minimum information for publication of quantitative real-time PCR experiments. *Clin Chem* 55, 611–622.

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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.



Bio-Rad 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.



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