## CFX96 Deep Well Dx System

The CFX96 Deep Well Dx System for in vitro diagnostic use offers industry-leading performance for large-volume reactions. Solid-state optical components provide sensitive detection for up to five targets. Together with unsurpassed thermal cycler performance, easy-to-use software, and the capability to support larger reaction volumes, the CFX96 Deep Well Dx is an open system offering the ultimate flexibility in commercial assay selection or rapid assay development.

The CFX96 Deep Well Dx System makes it easy for you to:

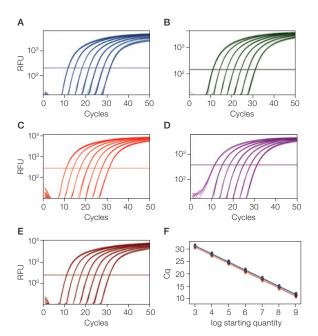
- Create a personalized system setup with user-specific system access settings and flexible instrument configurations
- · Generate robust results right away with factory-calibrated optics and fast system setup
- Streamline data analysis with built-in analysis modules and sophisticated quality control (QC) tools

## **Specifications**

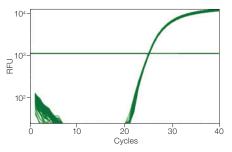


C1000 Dx Thermal Cycler	with CFX96 Dx ORM*		
Maximum ramp rate Average ramp rate Heating and cooling method Lid	2.5°C/sec 2°C/sec Peltier Heats up to 105°C	Gradient Operational range Programmable span Temperature range Temperature accuracy Temperature uniformity	30–100°C 1–24°C 0–100°C ±0.2°C of programmed target at 90°C ±0.4°C well-to-well within 10 sec of arrival at 90°C
Optical Detection			
Excitation	6 filtered LEDs	Dynamic range	10 orders of magnitude
Detection Range of excitation/ emission wavelengths	6 filtered photodiodes 450–730 nm	Scan time All channels Single-channel fast scan	12 sec 3 sec
Sensitivity	Detects 1 copy of target sequence in human genomic DNA		
Software			
Operating systems	Windows 7 (32-bit, 64-bit), Windows 10 (64-bit)		Allelic discrimination
Memory	Minimum of 1 GB		End-point analysis
Multiplex analysis Data analysis modes	Up to 5 targets per well PCR quantification with standard curve	Data export	Save, copy, and print all graphs and spreadsheets from right-click menu
Data analysis modes	Melt curve analysis		Export specified data in multiple formats
	Gene expression analysis by relative quantity ( $\Delta$ Cq) or normalized expression ( $\Delta$ $\Delta$ Cq) with multiple reference genes and individual reaction efficiencies		Copy and paste into Microsoft Excel, Word, or PowerPoint file
	Data analysis options include bar chart, clustergram, scatter plot, volcano plot, and heat map		Customizable reports containing run settings, data graphs, and spreadsheets can be directly printed or saved as PDFs
	Multiple file gene expression analysis for comparison of an unlimited number of quantification cycle (Cq) values		
System			
Sample capacity	96 wells	Dimensions (W x D x H)	33 x 46 x 36 cm (13 x 18 x 14 in.)
Sample size	10–125 µl	Weight	21 kg (47 lb)
Communication	USB 2.0	Real-time PCR license	Yes
Electrical approvals	IEC, CE	In vitro diagnostic license	Yes
		CE-IVD mark	Yes





**Linearity of five-target multiplex detection.** A–E, fluorescence data from a series of tenfold dilutions of plasmid DNA ( $10^9-10^3$  copies) amplified using reporter dyes to monitor five targets in a 75 µl reaction volume: ( $\blacksquare$ ), FAM/cyclophilin; ( $\blacksquare$ ), HEX/GAPDH; ( $\blacksquare$ ), Texas Red/actin; ( $\blacksquare$ ), Cy5/tubulin; ( $\blacksquare$ ), Quasar 705/*IL-1* $\beta$ ; **F**, standard curves generated from data in A–E, reaction efficiencies range from 100 to 102%. Cq, quantification cycle; RFU, relative fluorescence units.

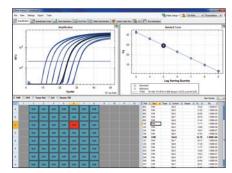


**Excellent uniformity.** *IL-1* plasmid template was diluted to 10<sup>5</sup> copies/reaction and amplified in the presence of a FAM labeled detection probe with iQ Supermix. Graph shows 96 replicates of 100  $\mu$ I reactions. Average Cq = 25.14  $\pm$  0.10. RFU, relative fluorescence units.

## **Software Solutions for Accurate Results**

CFX Manager Dx Software offers tools to simplify real-time PCR for every laboratory. Immediately generate results using the Startup Wizard and intuitive experiment setup. Enter or edit well information before, during, or after a run.

Analyze data when and where you want by receiving an email with an attached data file when a run is completed. When data are in hand, use the comprehensive data analysis, QC, and report tools to take the guesswork out of analyzing and reporting results for any real-time PCR application.



CFX Manager Dx Software data analysis module.

## **Ordering Information**

To order the CFX96 Deep Well Dx System, you must include both catalog numbers.

Catalog #	Description
1844095-IVD	CFX96 Deep Well Dx ORM, includes CFX Manager Dx
	Software, version 3.1 (catalog number 12007917)
1841000-IVD	C1000 Dx Thermal Cycler

USA: For in vitro diagnostic (IVD) use. The CFX96 Dx System and CFX96 Deep Well Dx System are registered with the U.S. FDA as Class II 510(k) exempt devices.

Canada: The CFX96 Dx System and CFX96 Deep Well Dx System are registered as Class I devices.

China: The CFX96 Deep Well Dx System has been certified as a Class III medical device by China's National Medical Products Administration (NMPA).

EU: For in vitro diagnostic use. The CFX96 Dx and CFX96 Deep Well Dx Systems meet the requirement of the European In Vitro Diagnostic Regulation (2017/746).

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Notice regarding high resolution melt analysis:

No rights are granted by Bio-Rad for the use of high resolution melt analysis in the fields of human or veterinary in vitro diagnostics. In addition, it is the responsibility of the purchaser to obtain any intellectual property rights which may be required for its specific applications.



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