CFX Maestro™ Software
For Bio-Rad CFX Real-Time PCR Instruments
CFX Maestro Software is real-time PCR software that not only collects data, but understands your data and what you want to do with it, combining data collection, statistics, and publication tools into one comprehensive package.

Whether you are a novice researcher running your first qPCR experiment, or are analyzing thousands of samples across hundreds of runs, CFX Maestro was built with your needs in mind and to work in whatever way is best for you.
CFX Maestro Software for CFX Real-Time PCR Instruments
An easy to learn, yet powerful system for push-button data collection, data analysis, and data visualization.

Easy Plate Setup and Reference Gene Selection
- Quickly set up multivariate experiments with both technical replicates and biological groups
- Identify reference gene stability and select ideal reference genes
- Simplify experimental design and primer design with PrimePCR™ Assay integration

Push-Button Data Analysis and Statistics
- Automatically calculate Cq values and reaction efficiency
- Easily perform statistical analysis including t-tests, and one- and two-way ANOVA
- Efficiently analyze multi-plate studies

Publication-Ready Graphics
- Visualize your results in bar charts, box and whisker graphs, clustergrams, and volcano plots
- Edit and annotate graphs and export for publication or presentations
Intuitive Plate Setup
CFX Maestro is built to help you quickly get started collecting data. Set up plates using a visual interface that color codes replicates for confirmation of accurate layout. Multivariate studies can be designed with both technical replicates and biological groups.

Plate setup can be performed before, during, or even after your real-time PCR run is complete — at whatever time is most convenient for you.

Select Your Ideal Reference Genes
Stable reference genes are essential when performing gene expression analysis. CFX Maestro Software’s Reference Gene Selection Tool will compare the stability of multiple reference genes, providing you with information about which reference genes are most likely to be expressed at consistent levels in all your samples throughout your runs, helping to ensure reliable relative expression data.

PrimePCR Assay Integration
Want to simplify your primer design, run design, and setup? With CFX Maestro and PrimePCR it’s easy. Drag and drop a PrimePCR run file into CFX Maestro to automatically populate plate setup and run conditions. Post run, ensure run quality with included PCR controls (no template, gDNA, and RT controls).
**qPCR Software That Works Like You Do**

**Push-Button Data Analysis and Statistics**

**Automatic Cq and Efficiency Calculation**

CFX Maestro Software’s tools allow you to view, analyze, and understand your data. A baseline threshold will automatically be set for each reaction target to calculate Cq value, or you can adjust thresholds yourself by simply clicking and dragging the threshold line. If a standard curve is present, CFX Maestro will automatically calculate reaction efficiency.

**Statistical Analysis in Seconds**

With just a few mouse clicks you can perform allelic discrimination, view normalized expression levels, perform t-tests, or analyze your data with one- and two-way ANOVA.

**Streamlined Multi-Plate Study Analysis**

CFX Maestro can also automate data analysis for multi-plate studies. Combine dozens or even hundreds of plates using the Gene Study function and perform statistical analysis on all your data in aggregate, without the need to export and combine large datasets in a separate software program.

View each individual amplification trace and color code them by target, sample, or randomly by well. RFU traces and baseline thresholds for three different target genes.

Combine multiple runs for analysis. Clustergram showing gene expression levels grouped by hierarchical similarity in a 15-plate study.
Volcano plots support rapid identification of genes of interest with statistically significant fold-level changes.

Box and whisker plots provide a visual representation of data medians and quartiles.

Bar charts provide a standard means to view relative normalized gene expression levels, and can also be annotated with $P$ values to provide statistical significance of your data.
BIO-RAD LABORATORIES, INC. | 7

U.S. FDA 21 CFR Part 11 Tools
CFX Maestro Security Edition provides tools to support 21 CFR Part 11 compliance, such as:
- Mandatory password-protected log-in — log-in required; administrator sets user privileges
- Time- and date-stamped audit trails — edit information is tracked and saved with each specific data file for easy tracking
- Electronic signatures — multiple electronic signatures can be applied to a single file at any editing step
- File encryption — file cannot be opened or edited by another program, minimizing risk of data corruption

Work on your own computer, anywhere, without the need for an Internet connection. CFX Maestro Software for Mac now lets both PC and Mac users utilize the integrated data analysis, statistics, and publication tools of CFX Maestro.

REGULATORY COMPLIANCE TOOLS

Designed to Work with CFX Real-Time PCR Instruments
CFX Instruments feature:
- Optical design that ensures superior data uniformity
- Block controls for accurate target temperatures
- 2–5 color multiplexing
- Thermal gradient to optimize run temperatures

LIMS and Automation System Integration
CFX Maestro and CFX Real-Time Instruments are designed for high-throughput qPCR:
- Data export into a designated LIMS folder
- Remote notification of run completion with attached data file
- Multi-instrument connectivity
- Automation systems configuration with the API Reference Guide

INSTRUMENT INTEGRATION AND HIGH-THROUGHPUT SOLUTIONS

qPCR SOFTWARE THAT WORKS LIKE YOU DO
WORK ANYWHERE ON PC OR MAC

PC OR MAC
## Specifications

<table>
<thead>
<tr>
<th>CFX Maestro Software</th>
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<tbody>
<tr>
<td><strong>Operating systems</strong></td>
<td>Windows 7, Windows 8, Windows 10, Mac OS X El Capitan, Mac OS Sierra</td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td>Minimum 1 GB</td>
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<tr>
<td><strong>Data analysis modes</strong></td>
<td>PCR quantification with standard curve, Melt curve analysis, Gene expression analysis by relative quantity (ΔCq) or normalized expression (ΔΔCq) 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 t-tests, one-way ANOVA, and two-way ANOVA, Multiple file gene expression analysis for comparison of an unlimited number of Cq values for multi-plate studies, Allelic discrimination, End-point analysis</td>
</tr>
<tr>
<td><strong>Image export</strong></td>
<td>Image size: any, Resolution: 72–600 dpi, Image format: jpg, png, bmp</td>
</tr>
<tr>
<td><strong>Data export</strong></td>
<td>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</td>
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## Ordering Information

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
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<tbody>
<tr>
<td>12004110</td>
<td>CFX Maestro Software</td>
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<tr>
<td>12004128</td>
<td>CFX Maestro Software for Mac</td>
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<tr>
<td>12005258</td>
<td>CFX Maestro Software, Security Edition, includes 1 license</td>
</tr>
<tr>
<td>12005259</td>
<td>CFX Maestro Software, Security Edition, includes 5 licenses</td>
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<tr>
<td>12005260</td>
<td>CFX Maestro Software, Chinese Edition</td>
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<tr>
<td>12005678</td>
<td>CFX Maestro Software, Russian Edition</td>
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<tr>
<td>1855195</td>
<td>CFX96 Touch™ Real-Time PCR Detection System</td>
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<td>1855485</td>
<td>CFX384 Touch™ Real-Time PCR Detection System</td>
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<tr>
<td>1855201</td>
<td>CFX Connect™ Real-Time PCR Detection System</td>
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<tr>
<td>1854095</td>
<td>CFX96 Touch Deep Well Real-Time PCR Detection System</td>
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Visit bio-rad.com/web/CFXMaestro for more information.

Bio-Rad’s real-time thermal cyclers are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 6,767,512 and 7,074,367.

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