

## MyiQ™ 2 Two-Color Real-Time PCR Detection System

The MyiQ2 system offers two-target analysis capabilities for multiplex PCR and routine detection of single fluorophore experiments using SYBR® Green I or other green fluorescent dyes. The system is built on the quality gradient-enabled iCycler® thermal cycler, facilitating rapid experiment optimization. The iQ™5 optical system software, version 2.1, used to control the MyiQ2 system, has advanced features for streamlined gene expression analysis, quantitative assays with multiple standard curves, and other qualitative assays, including allelic discrimination and screening for known mutations.

### Specifications

#### Operational

Heating rate	Up to 3.3°C/sec
Cooling rate	Up to 2.0°C/sec
Method of heating/cooling	Peltier and Joule
Modes of temperature monitoring	Algorithm
Temperature	
Range	4–100°C
Accuracy	±0.3°C
Uniformity	±0.4°C
Overshoot maximum	<0.5°C
Heated lid	Up to 110°C

#### Gradient Mode

Gradient accuracy	±0.4°C
Row uniformity	±0.4°C
Gradient range	40–100°C
Temperature differential range	1–25°C

#### Descriptive

Sample capacity	96 wells
Sample size	10–100 µl
Licensed for PCR	Yes
Communications	USB 2.0 Hi-Speed
Electrical approvals	IEC, CE
Dimensions (W x D x H)	29.2 x 58.4 x 38.7 cm (11.5 x 23 x 15.2")
Weight	17.6 kg (39 lb)

#### Optical System

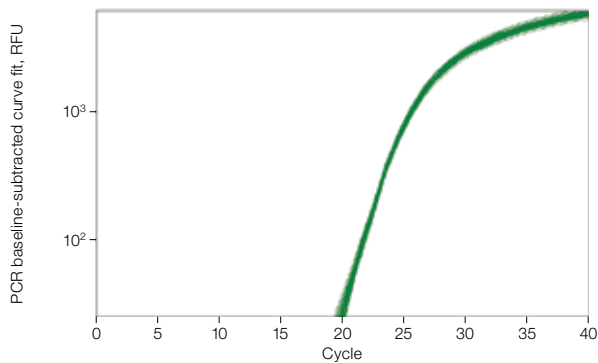
Optical lamp	Tungsten-halogen
Sensitivity	Detects 1 copy of IL-1β in human genomic DNA
Dynamic range	9 orders of magnitude
Excitation/emission filters	2 filter sets included
Fluorescence excitation range	470–545 nm
Fluorescence detection range	
Channel 1	515–545 nm
Channel 2	565–585 nm



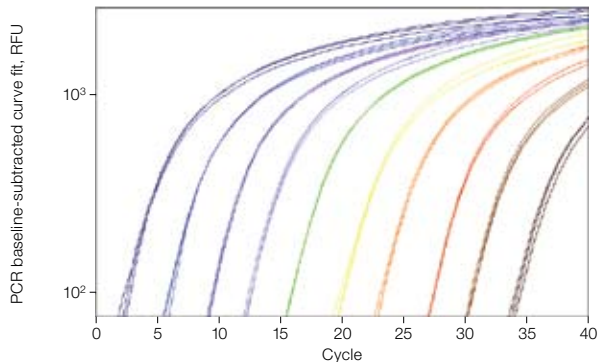
**MyiQ™ 2** Two-Color Real-Time PCR Detection System

#### Software

Operating platform	Windows XP Professional, Windows Vista
Multiplex analysis	Up to 2 targets per well
Data analysis modes	Absolute quantitation with standard curve Automated allelic discrimination by end-point fluorescence or threshold cycle Melt-curve analysis End-point analysis for up to 2 fluorophores Gene expression analysis by relative quantity ( $\Delta C_T$ ) or normalized expression ( $\Delta\Delta C_T$ ) with multiple reference genes Multifile gene expression analysis for comparison of over 5,000 $C_T$ values
Data export modes	Print data graphs and tables from software-based menu Export formatted data table to Microsoft Excel Copy and paste directly into Microsoft Excel, Word, or PowerPoint files Detailed reports contain run conditions, data graphs and tables, and data analysis parameters



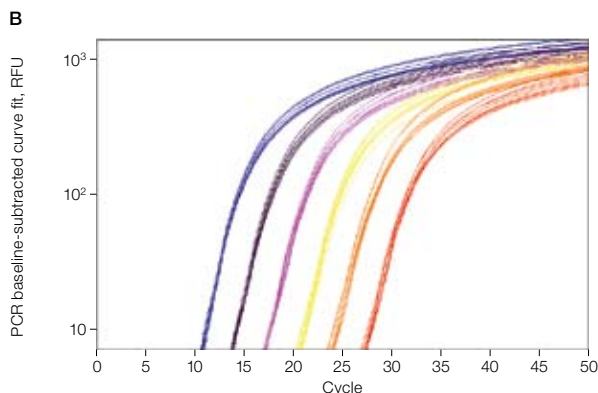
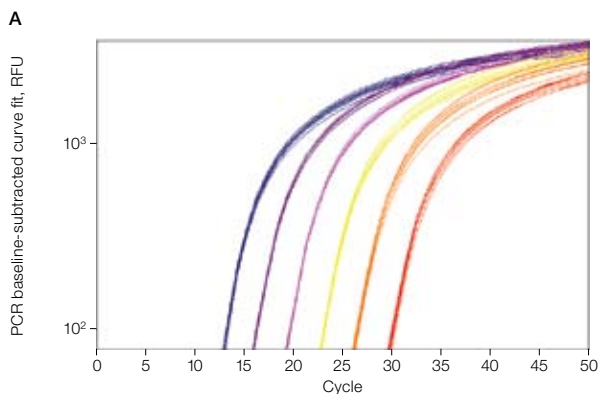
**Excellent uniformity across the reaction block.** FAM hydrolysis probe (25 µl) detection of 5 ng IL-1β genomic DNA. Threshold cycle ( $C_T$ ) value = 21.77, SD = 0.060. RFU, relative fluorescence units.



**Superb linearity over a wide dynamic range of template starting concentrations.** A tenfold serial dilution of plasmid DNA was amplified using iQ™ supermix with primers and a FAM-labeled probe specific to the β-actin gene. Triplicates of each template concentration were monitored with the MyiQ2 system. Standard curve had  $R^2 = 0.999$ , efficiency = 93.3%. RFU, relative fluorescence units.

## Ordering Information

Catalog #	Description
170-9790	<b>MyiQ2 Two-Color Real-Time PCR Detection System</b> , includes iCycler chassis, 96-well block, MyiQ2 optics module, iQ5 optical system software, version 2.1, accessories
170-9759	<b>MyiQ2 Optical System Upgrade Kit</b> , includes MyiQ2 optics module, optical lid, 96-well block, iQ5 optical system software, version 2.1, accessories
223-9441	<b>iQ 96-Well PCR Plates, 25</b>
HSS-9601	<b>Hard-Shell® Full-Height 96-Well Semi-Skirted PCR Plates</b> , clear shell, clear well, 25
MSB-1001	<b>Microseal® 'B' Adhesive Seals</b> , 100
TBS-0201	<b>0.2 ml 8-Tube Strips Without Caps</b> , 125
TCS-0803	<b>Optical Flat 8-Cap Strips</b> , 120
170-8756	<b>Halogen Lamp</b> , replacement, for iCycler iQ®, iQ5, MyiQ™, and MyiQ2 systems
170-8791	<b>MyiQ2 Calibrator Dye Solution Kit</b> , 1x calibration dye solutions, 3 tubes each of FAM, HEX, JOE, and TET
170-8794	<b>External Well Factor Solution</b> , 5 x 1.5 ml tubes
170-8860	<b>iQ Supermix</b> , 100 x 50 µl reactions, 2x mix
170-8880	<b>iQ™ SYBR® Green Supermix</b> , 100 x 50 µl reactions, 2x mix



**Two-target multiplexing capabilities.** Data from a tenfold serial dilution of template ( $10^8$ – $10^3$  copies) were monitored with the MyiQ2 system.

**A**, FAM-labeled probe specific to β-actin; **B**, HEX-labeled probe specific to GAPDH. RFU, relative fluorescence units.

172-5200	<b>SsoFast™ EvaGreen® Supermix</b> , 200 x 20 µl reactions, 2x mix contains dNTPs, Sso7d fusion polymerase, MgCl <sub>2</sub> , EvaGreen dye, stabilizers
170-8890	<b>iScript™ cDNA Synthesis Kit</b> , 25 x 20 µl reactions
170-8896	<b>iScript Select cDNA Synthesis Kit</b> , 25 x 20 µl reactions
170-8892	<b>iScript™ One-Step RT-PCR Kit With SYBR® Green</b> , 50 x 50 µl reactions
170-8894	<b>iScript One-Step RT-PCR Kit for Probes</b> , 50 x 50 µl reactions

EvaGreen is a trademark of Biotium, Inc. Bio-Rad Laboratories, Inc. is licensed by Biotium, Inc. to sell reagents containing EvaGreen dye for use in real-time PCR, for research purposes only. Excel, Microsoft, PowerPoint, Windows, and Windows Vista are trademarks of Microsoft Corporation. SYBR is a trademark of Invitrogen Corporation. Bio-Rad Laboratories, Inc. is licensed by Invitrogen Corporation to sell reagents containing SYBR Green I for use in real-time PCR, for research purposes only.

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 Nos. 7,347,977, 6,340,589, and 6,528,302.

Practice of the patented 5' Nuclease Process requires a license from Applied Biosystems. The purchase of these products includes an immunity from suit under patents specified in the product insert to use only the amount purchased for the purchaser's own internal research when used with the separate purchase of Licensed Probe. No other patent rights are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained from the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

Notice regarding Bio-Rad thermal cyclers and real-time systems: Purchase of this instrument conveys a limited non-transferable immunity from suit for the purchaser's own internal research and development and for use in human in vitro diagnostics and all other applied fields under one or more of U.S. Patents 5,656,493, 5,333,675, 5,475,610 (claims 1, 44, 158, 160–163 and 167 only), and 6,703,236 (claims 1–7 only), or corresponding claims in their non-U.S. counterparts, owned by Applied Biosystems. No right is conveyed expressly, by implication or by estoppel under any other patent claim, such as claims to apparatus, reagents, kits, or methods such as 5' nuclease methods. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applied's United States Patent 6,814,934 B1 for use in research, human in vitro diagnostics, and all other fields except veterinary diagnostics.

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 Nos. 6,767,512 and 7,074,367.

**BIO-RAD**

**Bio-Rad  
Laboratories, Inc.**

Life Science  
Group

**Web site** [www.bio-rad.com](http://www.bio-rad.com) **USA** 800 424 6723 **Australia** 61 2 9914 2800 **Austria** 01 877 89 01 **Belgium** 09 385 55 11 **Brazil** 55 31 3689 6600 **Canada** 905 364 3435 **China** 86 20 8732 2339 **Czech Republic** 420 241 430 532 **Denmark** 44 52 10 00 **Finland** 09 804 22 00 **France** 01 47 95 69 65 **Germany** 089 31 884 0 **Greece** 30 210 777 4396 **Hong Kong** 852 2789 3300 **Hungary** 36 1 459 6100 **India** 91 124 4029300 **Israel** 03 963 6050 **Italy** 39 02 216091 **Japan** 03 6361 7000 **Korea** 82 2 3473 4460 **Mexico** 52 555 488 7670 **The Netherlands** 0318 540666 **New Zealand** 0508 805 500 **Norway** 23 38 41 30 **Poland** 48 22 331 99 99 **Portugal** 351 21 472 7700 **Russia** 7 495 721 14 04 **Singapore** 65 6415 3188 **South Africa** 27 861 246 723 **Spain** 34 91 590 5200 **Sweden** 08 555 12700 **Switzerland** 061 717 95 55 **Taiwan** 886 2 2578 7189 **United Kingdom** 020 8328 2000