QIAquant real-time PCR cyclers

Sample to Insight

The QIAquant instruments combine a high-performance thermal block with fast and sensitive detection of PCR products

Fast cycling time, down to 30 minutes

Multiplex detection of up to 5 different targets

High temperature ramping rates and gradient function

Temperature uniformity down to 0.15°C at 55°C

Available in three different configurations to match different requirements in term of multiplexing capacity, throughput and budget

	QIAquant 96 2plex	QIAquant 96 5plex	QIAquant 384 5plex
Multiplex capacity	2plex	5plex	5plex
Block capacity	96 samples	96 samples	384 samples
Operation	Touchscreen and/or PC	Touchscreen and/or PC	PC

An all-round system designed for performance

Fast fiber-optic shuttle system

6 seconds read-out for entire plate regardless of the number of channels

Motorized heated lid

Applies homogenous pressure and can be adjusted from 30°C to 110°C

SBS sample-block

High thermal conductivity provides outstanding block uniformity, heating and cooling ramping rates. Compatible with standard SBS plates, strips and tubes

Fast cycling thermal block with gradient function

Temperature range of 4 – 99°C with heating ramping rate up to 8°C/s

Up to five color modules for multiplexing

Channel	Excitation (nm)	Detection (nm)	Examples of fluorophores detected
Blue	455±15	515±10	FAM™, SYBR® Green, EvaGreen®
Green	520±10	560±15	JOE™, HEX™, VIC®
Orange (5plex versions only)	580±15	620±15	ROX™, Texas Red®
Red (5plex versions only)	633±10	680±15	Cy5®, Alexa Fluor® 647
NIR 1 (5plex versions only)	660±10	710±20	Cy5.5®, Quasar® 705

Simple operation with the Q-Rex Software

The QIAquant instruments are operated with the Q-Rex Software via desktop or the integrated touchscreen.

Both versions facilitate experiment setup and data acquisition, while the desktop version of Q-Rex further enables data analysis, report generation and data export.

The Q-Rex Software package offers:

- Step-by-step guide for simple operation of the QIAquant instruments
- Support of all current state-of-the-art real-time PCR analysis procedures from basic to advanced algorithms
- Complex data analysis functions for advanced researchers, while remaining suitable for use by novices

Overview of technical specifications

All specifications on our **Product Page**

Name	QIAquant 96 (2plex and 5plex)	QIAquant 384 5plex
Block format	96 wells	384 wells
Block materials	Silver sample block with gold coating	Aluminum, special alloy
Sample volume	5–100 µl (10 to 80 µl recommended)	2–30 µl (5 to 20 µl recommended)
Lid temperature	30–110°C	
Temperature gradient	40°C (0.1°C steps)	25°C (0.1°C steps)
Max. heating rate*	max. 8°C/s, av. 7°C/s (depending on consumables used)	max. 4°C/s, av. 3.8°C/s (depending on consumables used)
Max. cooling rate*	max. 6°C/s, av. 5.5°C/s (depending on consumables used)	max. 2°C/s, av. 1.7°C/s (depending on consumables used)
Heating rate adjustment	min. 0.1°C/s	
Temperature uniformity (15 s after starting the clock)	±0.15°C at 55°C ±0.25°C at 72°C ±0.50°C at 95°C	
Temperature range	4°C – 99°C	
Temperature accuracy	0.1°C	
Supported plastic products	96-well micro titer plates with optical film, 8-well strips 0.2 ml with optical lids, 0.2 ml individual vessels with optical lids	384-well PCR plates with optical sealing film
Sensitivity	1 nmol/l FAM at 30 µl sample volume in a 96-well PCR plate	1 nmol/l FAM at 30 µl sample volume in a 384-well PCR plate
Dynamic range	10 log stages	
Light source	Five high-intensity LEDs (blue, green, white, red, far-red)	
Detector	Photomultiplier (PMT)	
Analysis methods	Absolute quantification, ΔΔCt method, allelic discrimination, efficiency calculation, DNA melting curves, POS/NEG analysis in the end point	
Export functions	Excel, CSV, PDF report	

Uniformity

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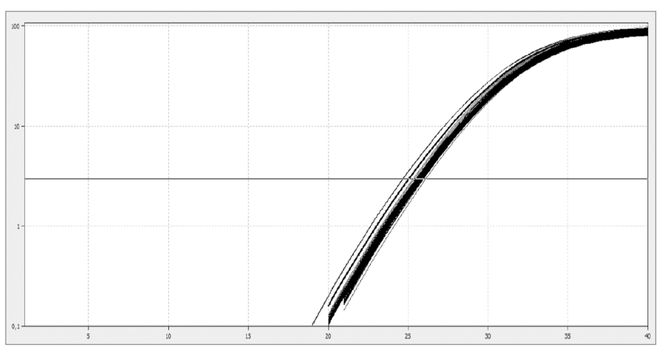
QIAquant 96

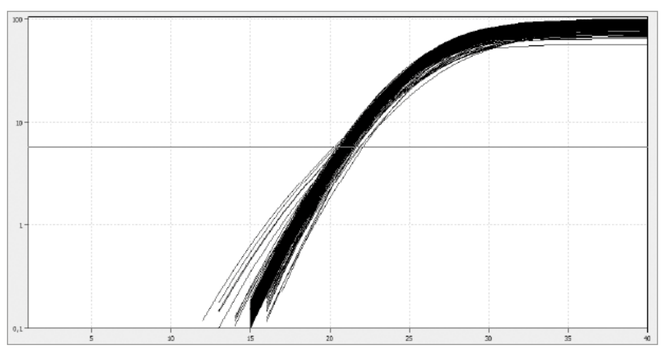
dRn



Cycle

QIAquant 384

dRn

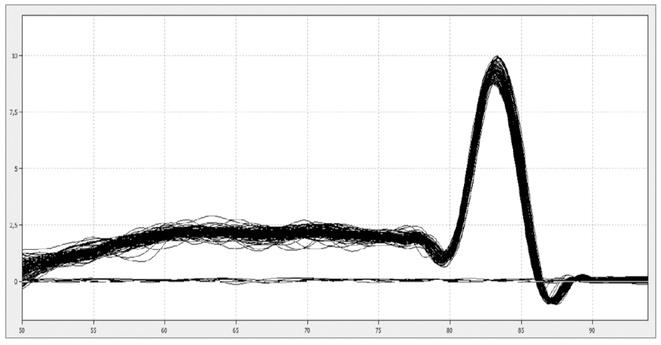


Cycle

Ⓑ

QIAquant 96

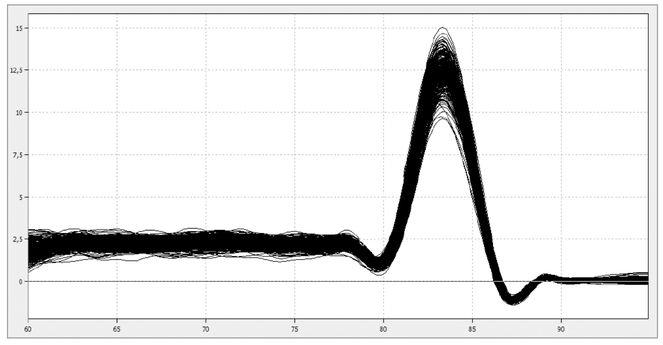
ddRn/dT



Temperature (C°)

QIAquant 384

ddRn/dT

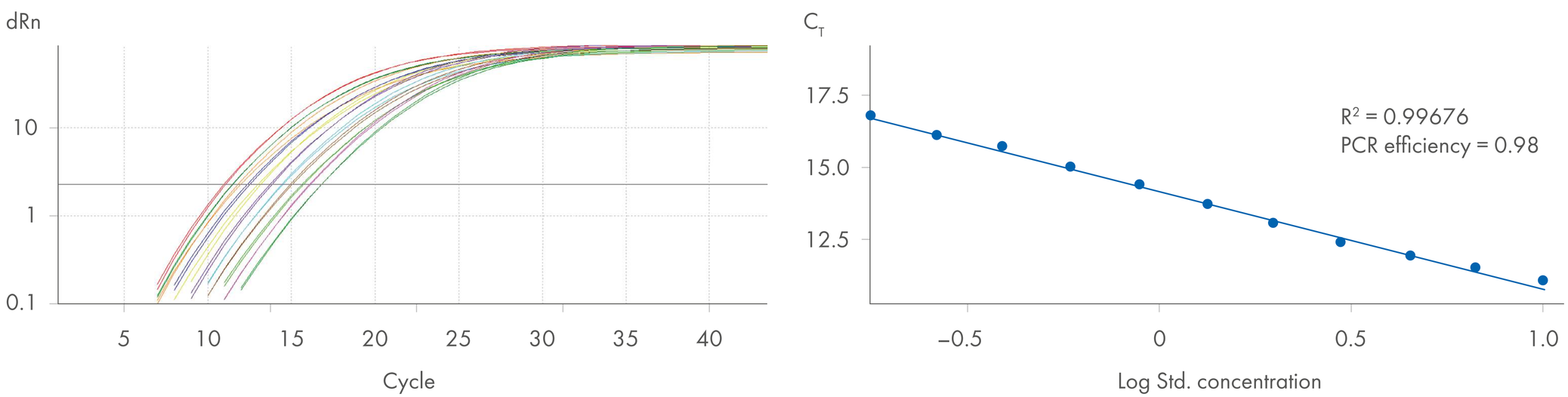


Temperature (C°)

Block uniformity on the QIAquant 96 and QIAquant 384.

Amplification curves A and melting curves B of respectively 96 and 384 replicates on QIAquant 96 and QIAquant 384. Real-time PCR was done using 100 ng of *E.coli* DNA in each of the 96 and 384 block positions. **A** Amplification curves of a 300 bp amplicon of the 16S using QuantiNova® SYBR® Green PCR Kit. **B** melting curve analysis of the amplicons. Low variation of Cq values (SD < 0.2) and Tm of the melt curves (SD < 0.1) demonstrate demonstrated temperature uniformity across the block of the QIAquant 96 and QIAquant 384.

1.5-fold dilutions resolution



Confident resolution of 1.5-fold dilutions.

E. coli 16S was amplified from a 1.5-fold dilution series with template concentration ranging from 0.173 ng to 10 ng using QuantiNova SYBR® Green PCR Kit, in duplicates. Results show clear discrimination of the different dilutions for precise and confident quantification.

Ordering Information

Try a QIAquant yourself **Request a Demo**

Product	Contents	Cat. no.
QIAquant 96 2plex (115V)	High performance real-time PCR thermal cycler with 2plex detection system, 96-well block, software, and touchscreen interface. 115V power specification	9003000
QIAquant 96 2plex (230V)	High performance real-time PCR thermal cycler with 2plex detection system, 96-well block, software, and touchscreen interface. 230V power specification	9003001
QIAquant 96 5plex (115V)	High performance real-time PCR thermal cycler with 5plex detection system, 96-well block, software, and touchscreen interface. 115V power specification	9003010
QIAquant 96 5plex (230V)	High performance real-time PCR thermal cycler with 5plex detection system, 96-well block, software, and touchscreen interface. 230V power specification	9003011
QIAquant 384 5plex (115V)	High performance real-time PCR thermal cycler with 5plex detection system, 384-well block and software. 115V power specification	9003020
QIAquant 384 5plex (230V)	High performance real-time PCR thermal cycler with 5plex detection system, 384-well block and software. 230V power specification	9003021
qPCR 384-well plate white, skirted (10)	384-well qPCR plate, white, skirted (10)	209001
qPCR 96-well plate white, skirted (10)	96-well qPCR plate, white, skirted (10)	209002
qPCR adhesive plate foil (100)	Adhesive foils for qPCR plates (100)	209003