

# QIAquant real-time PCR cyclers

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



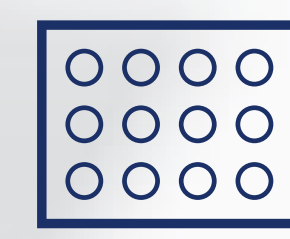
Fast cycling time,  
down to 30 minutes



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

	<b>QIAquant 96 2plex</b>	<b>QIAquant 96 5plex</b>	<b>QIAquant 384 5plex</b>
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

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## **Fast fiber-optic shuttle system**

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

## **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

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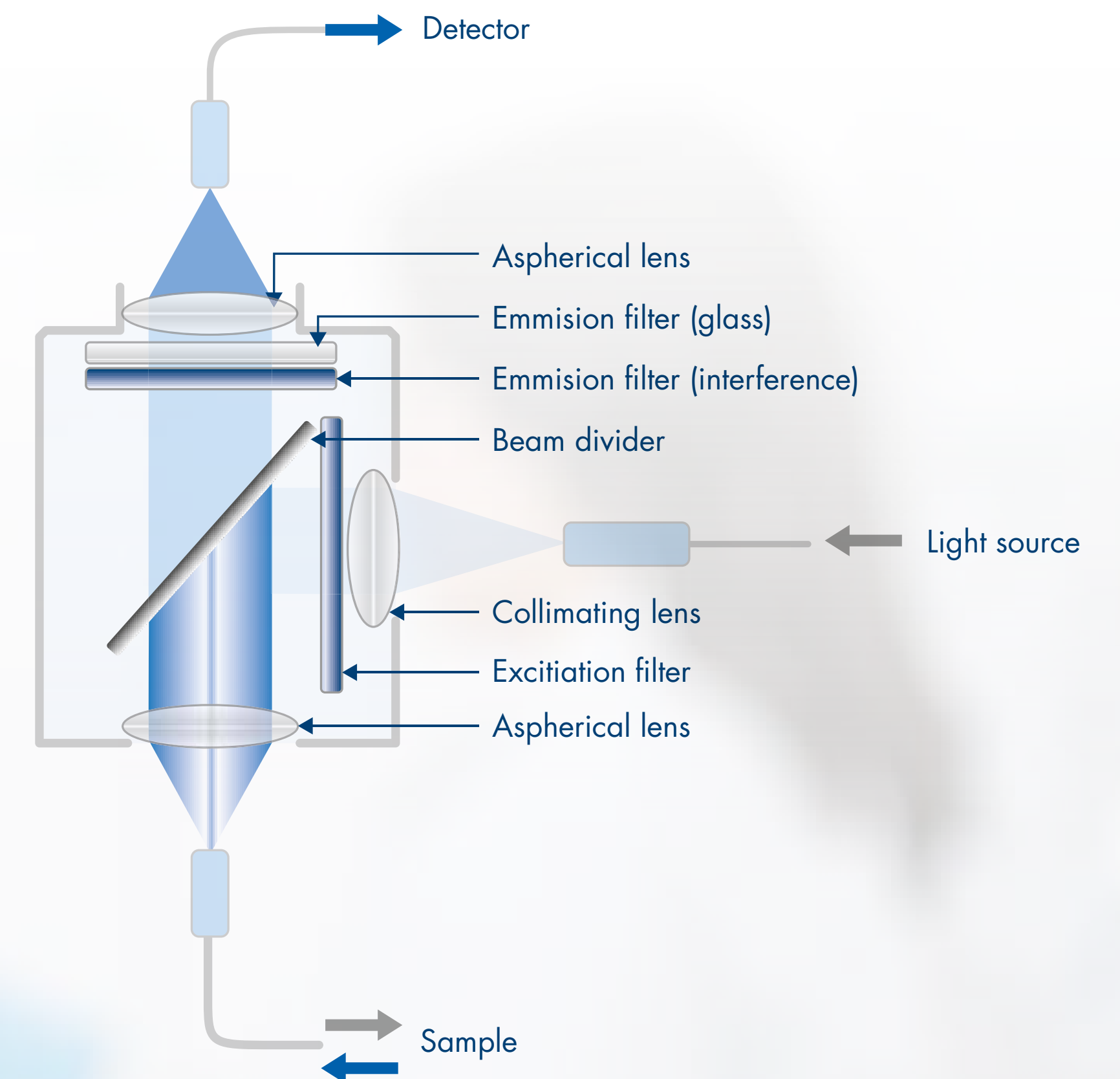
# Fast and sensitive fiber-optic shuttle system



Fast cycling time, down to 30 minutes



Fast read-out time for an entire plate in only 6 seconds regardless of the number of filters used



## 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

All specifications on our **Product Page**

# Overview of technical specifications

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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	3°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, relative quantification, $\Delta\Delta C_t$ method, allelic discrimination, efficiency calculation, DNA melting curves, POS/NEG analysis in the end point	
Export functions	Excel, CSV, LIMS, GenEx, qBase	

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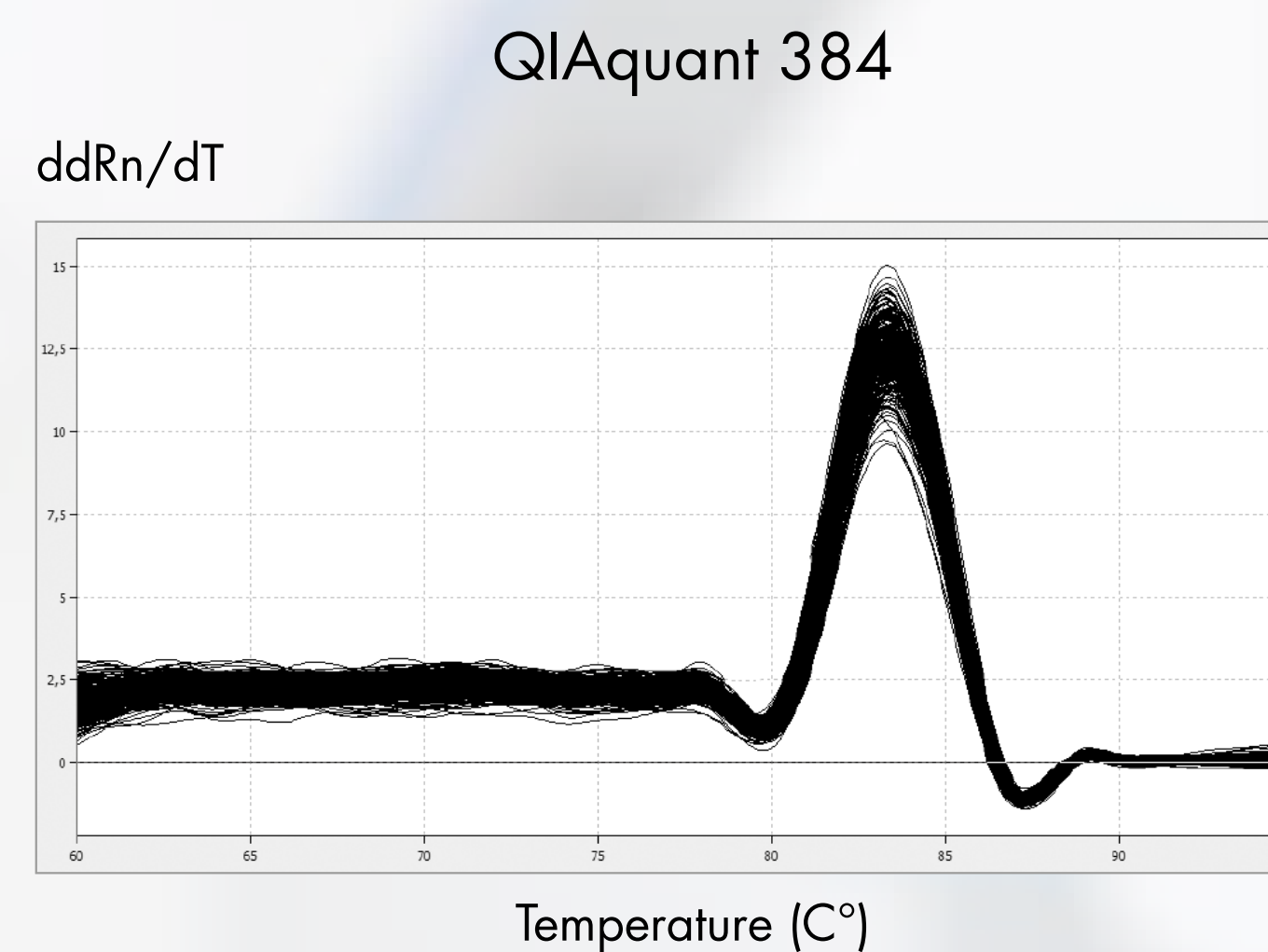
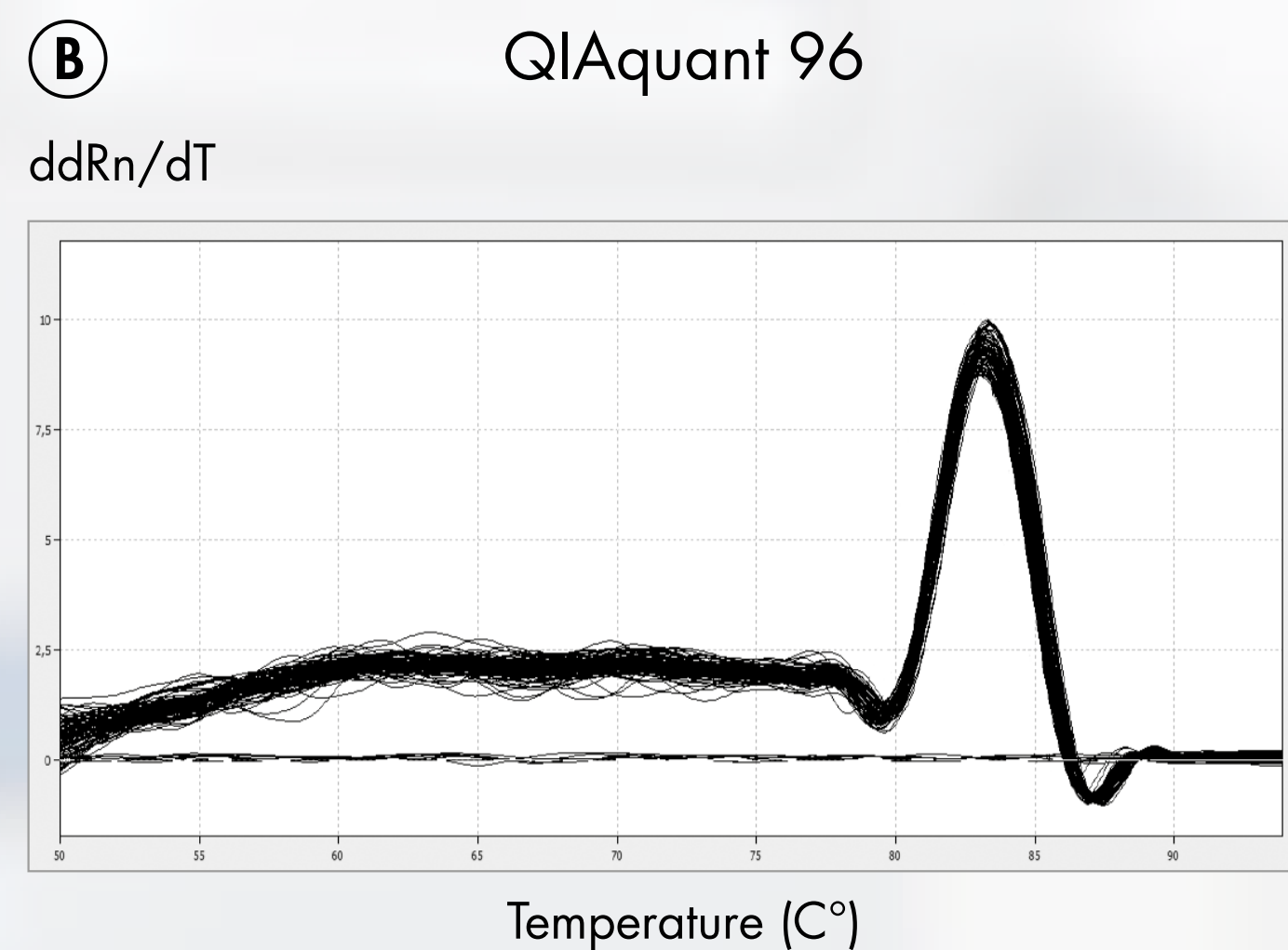
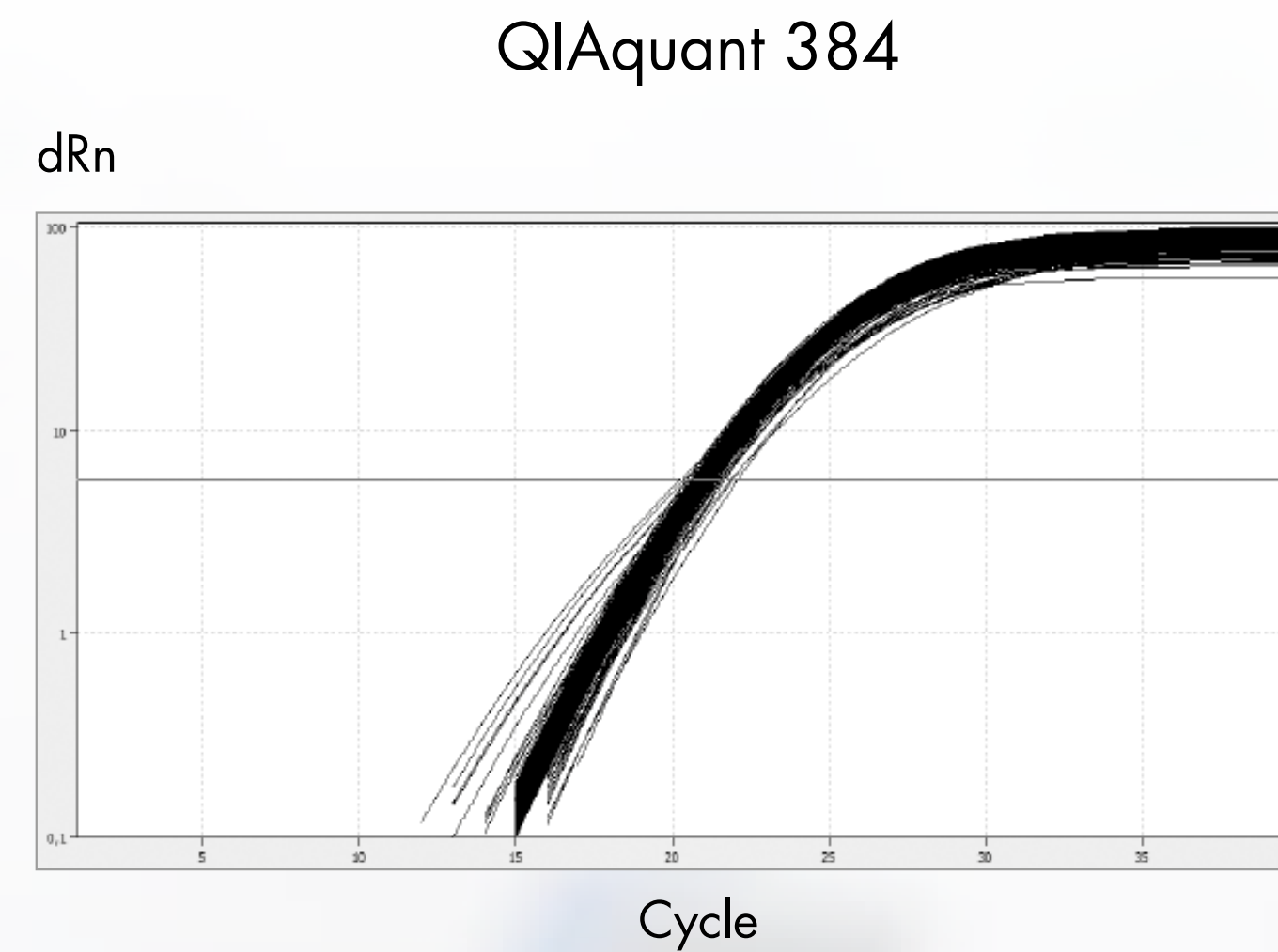
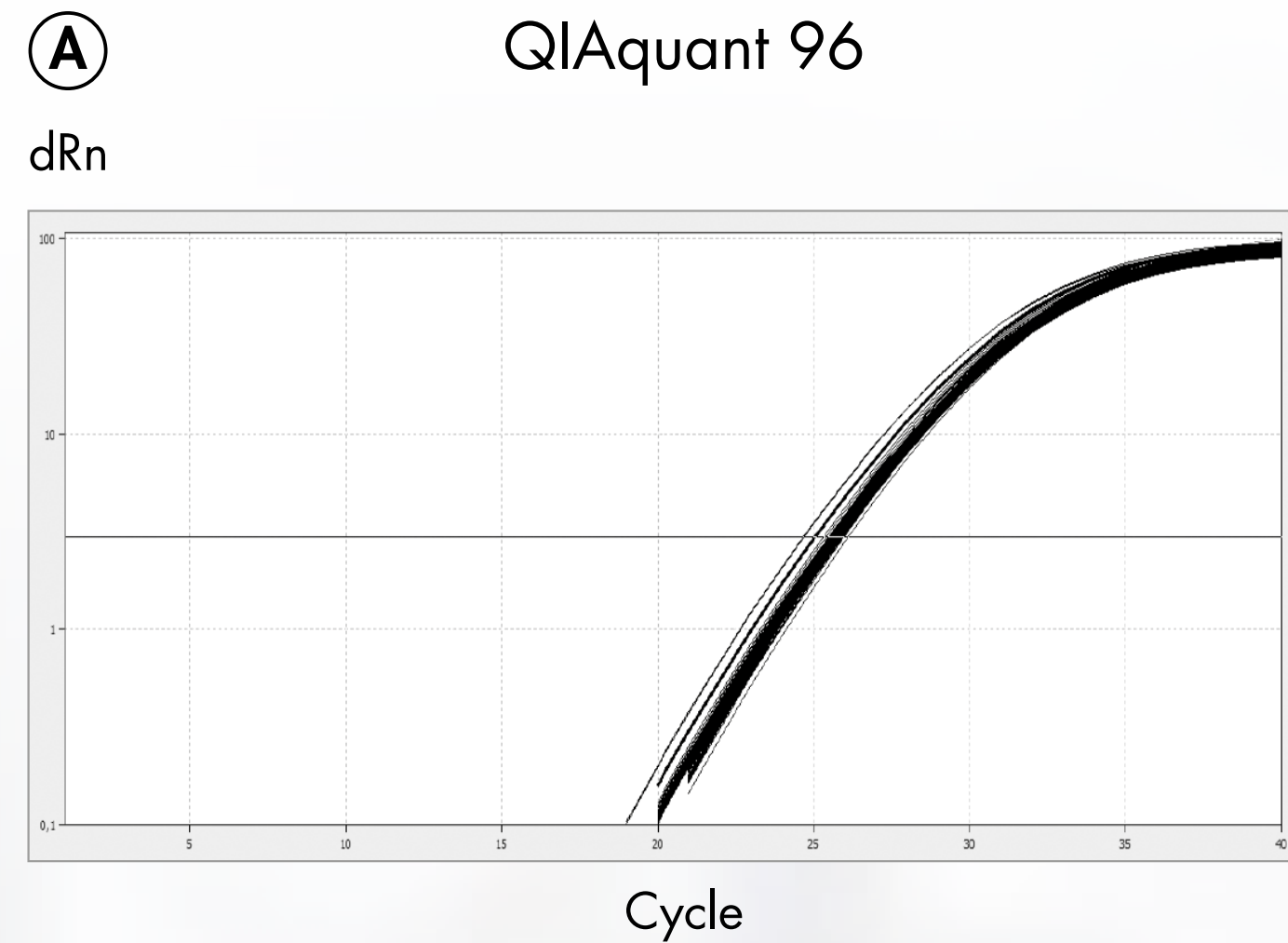
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# Uniformity



**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 C<sub>q</sub> values (SD < 0.2) and T<sub>m</sub> 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

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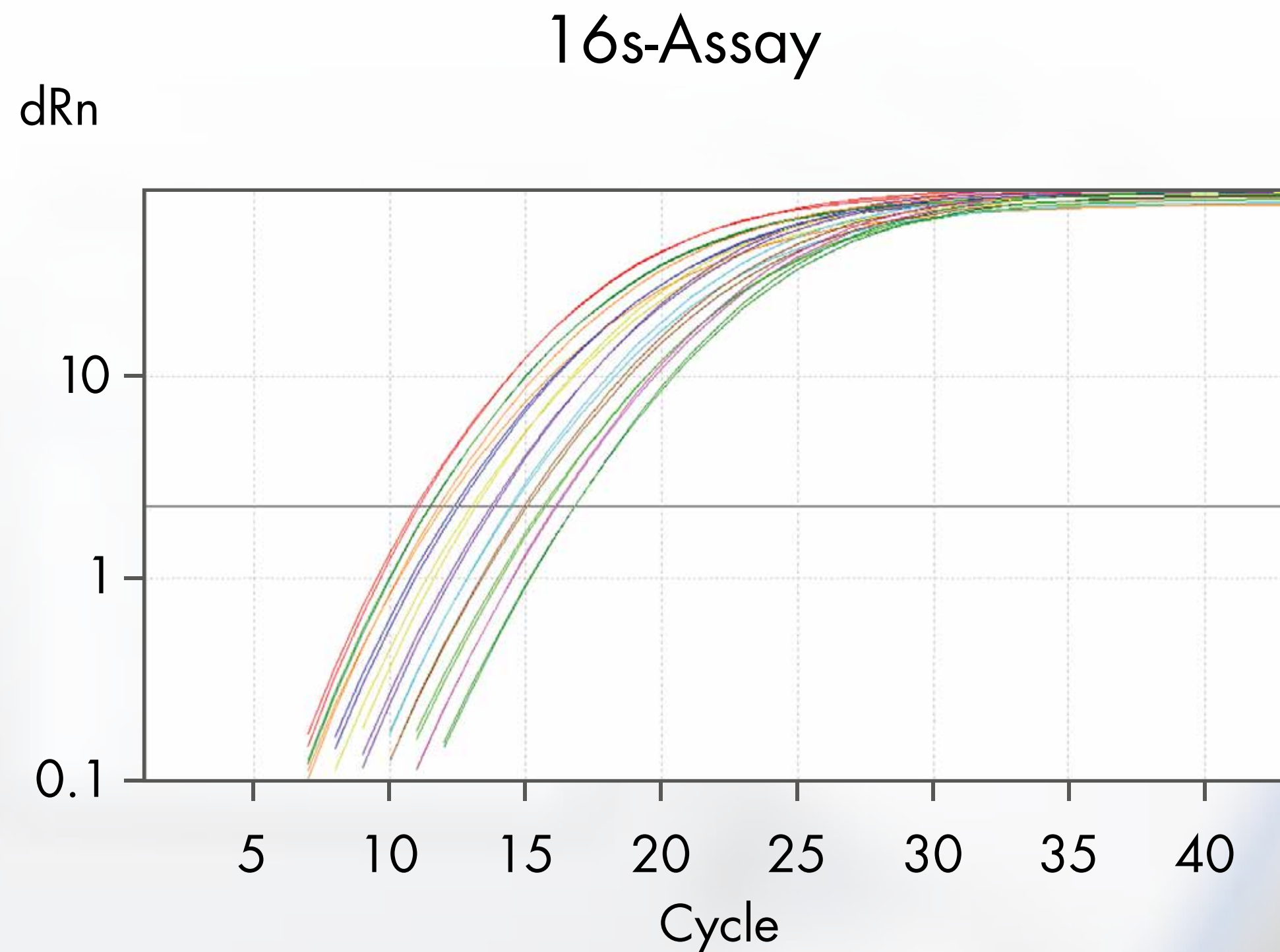
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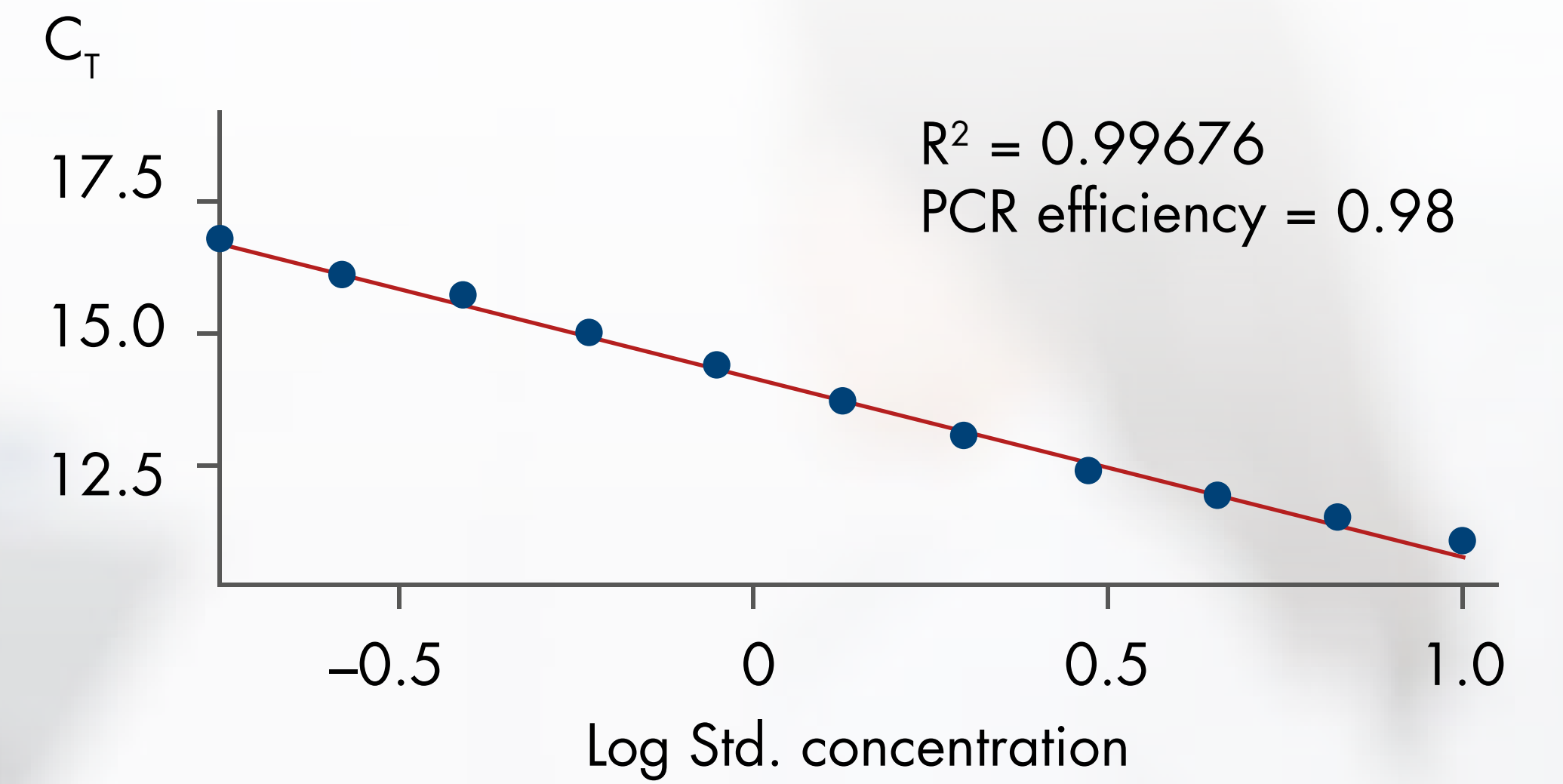
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- 10 ng      — 6.667 ng      — 4.444 ng
- 2.963 ng   — 1.975 ng      — 1.317 ng
- 0.878 ng   — 0.585 ng      — 0.390 ng
- 0.260 ng   — 0.173 ng



**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.



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

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