Rotor-Gene® Q — Pure Detection

QIAGEN®

Sample & Assay Technologies

The Rotor-Gene Q — designed to drive your research forward

Quantitative, real-time PCR is a precision science that places high demands on the instrument, chemistry, and software. High thermal and optical uniformity, short equilibration times, and fast ramping rates are critical for precise and rapid quantitative analysis. Sensitivity, speed, and specificity are also highly dependent on the performance of the DNA polymerase and reaction components.

QIAGEN's real-time PCR cycler, the Rotor-Gene Q, combines multiple optimized design features to provide the outstanding performance and reliable results that your research demands. Together with optimized QIAGEN® kits for real-time PCR, the Rotor-Gene Q enables streamlined analysis for a wide range of applications.

Benefits of the Rotor-Gene Q:

- Outstanding thermal and optical performance due to rotary format
- An unmatched optical range spanning UV to infrared wavelengths
- State-of-the art analyses supported by user-friendly software
- Low maintenance and maximum convenience due to robust design
- High performance in multiple applications with QIAGEN kits and assays

Comprehensive application range

The Rotor-Gene Q combined with optimized QIAGEN kits addresses all real-time PCR and high-resolution melting (HRM™) applications, including:

- Gene expression analysis
- Pathogen detection
- DNA methylation analysis
- Genotyping
- Gene scanning
- miRNA research

For details of applications, see pages 8–12.

Unique rotary design for outstanding performance

The unique centrifugal rotary design of the Rotor-Gene Q makes it the most precise and versatile real-time PCR cycler currently available (Figure 1). Each tube spins in a chamber of moving air, keeping all samples at precisely the same temperature during rapid thermal cycling. Detection is similarly uniform. When each tube aligns with the detection optics, the sample is illuminated and the fluorescent signal is rapidly collected from a single, short optical pathway. This thermal and optical uniformity results in sensitive, precise, and fast real-time PCR analysis (Figure 2). It also eliminates sample-to-sample variations and edge effects. These are unavoidable in traditional block-based instruments due to temperature gradients across the block and multiple, complex optical pathways.

The rotary design delivers:

- Well-to-well variation below ±0.01°C (20 times less than block cyclers)
- Uniform detection eliminating the need for ROX reference dye
- Fast ramping and negligible equilibration times for short run times
- Complete confidence in your results!

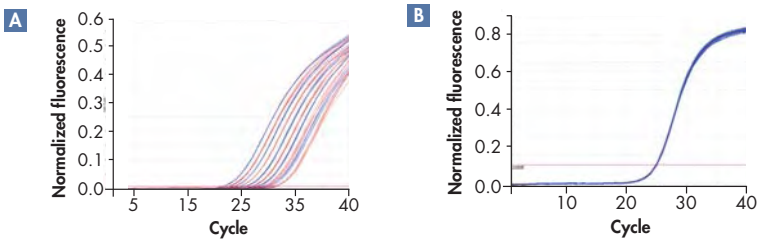


Figure 2. Precise real-time PCR analysis. A Twofold dilutions of human genomic DNA from 30 ng (10,000 copies) to 0.06 ng (20 copies) were used as template in real-time PCR. Five replicate reactions were run for each dilution using a self-designed TaqMan® assay for IL1R2 and the Rotor-Gene Probe PCR Kit on the Rotor-Gene Q. The average difference in the C_T values between all dilutions was 1.07 cycles. B Human genomic DNA was used as template in 72 replicate real-time PCRs using a self-designed TaqMan assay for BCL2 on the Rotor-Gene Q without ROX normalization. The average C_T value was 24.94 with a standard deviation of only 0.05, equivalent to a CV of 0.2%.

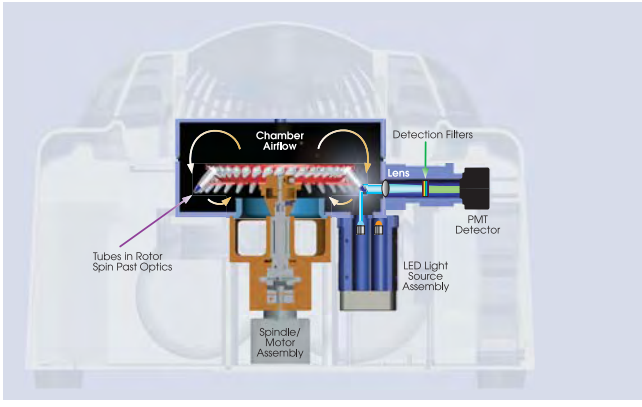
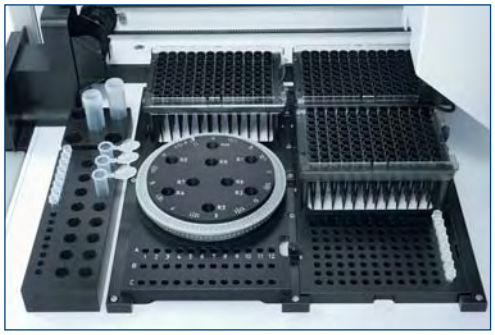


Figure 1. Cross-section of the Rotor-Gene Q. Heating/cooling is achieved by rapid airflow in the reaction chamber. Tubes spin past the excitation/detection optics every 150 milliseconds enabling high-speed data capture. Up to 6 separate LED light sources can be used in combination with 6 different detection filters and a highly sensitive photomultiplier detector.

Placing a 72-Well Rotor into the Rotor-Gene Q.

Multiple PCR tube and Rotor-Disc formats.



Automated PCR setup with the QIAgility.

Unrivaled optical range enables multiple applications

Whether your assay is based on intercalating dyes such as SYBR® Green, probes such as hydrolysis (TaqMan) or hybridization (FRET) probes, or multiplex chemistries, the Rotor-Gene Q meets your requirements. With up to 6 channels spanning UV to infrared wavelengths, the cycler delivers the widest optical range currently available (Table 1). In addition, the software allows you to create new excitation/detection wavelength combinations, which means that the Rotor-Gene Q is compatible with dyes you may use in the future.

Table 1. Channels for optical detection

Channel	Excitation (nm)	Detection (nm)	Examples of fluorophores detected
Blue	365±20	460±20	Marina Blue®, Edans, Bothell Blue, Alexa Fluor® 350
Green	470±10	510±5	FAM™, SYBR Green I, Fluorescein, EvaGreen®, Alexa Fluor 488
Yellow	530±5	557±5	JOE™, VIC®, HEX, TET™, CAL Fluor® Gold 540, Yakima Yellow®
Orange	585±5	610±5	ROX™, CAL Fluor Red 610, Cy®3.5, Texas Red®, Alexa Fluor 568
Red	625±5	660±10	Cy5, Quasar® 670, LightCycler® Red640, Alexa Fluor 633
Crimson	680±5	712 high pass	Quasar 705, LightCycler Red705, Alexa Fluor 680
HRM	460±20	510±5	SYBR Green I, SYTO®9, LC Green®, LC Green Plus+, EvaGreen

Flexible formats match your workflows

The Rotor-Gene Q supports multiple PCR tube formats to suit a range of needs. Changing the format, by simply switching the snap-fit metal rotor that holds the tubes, takes just seconds.

As well as tubes, Rotor-Discs™ are available, which offer accelerated setup and higher throughput. Rotor-Discs are circular plates of vertically-oriented reaction wells. The Rotor-Disc 100 is the equivalent of a 96-well plate with an additional 4 reference wells. These extra wells can be conveniently used for more reactions or additional controls. Rotor-Discs can be quickly and easily sealed with plastic film using a Rotor-Disc Heat Sealer.

All formats are fully compatible with the QIAgility™ instrument for automated reaction setup. Reaction setup for the data shown in this brochure was performed using the QIAgility. Visit www.qiagen.com/goto/QIAgility to find out how the QIAgility can fully automate your PCR setup and free up your time.

Expand your research with HRM

High-resolution melting analysis (HRM) is a closed-tube, post-PCR analysis that has raised enormous scientific interest. HRM characterizes double-stranded PCR products based on their dissociation (melting) behavior. It is similar to classical melting curve analysis, but provides far more information for a wider range of applications. PCR products can be discriminated according to sequence, length, GC content, or strand complementarity, down to single base-pair changes. Previously unknown and even complex sequence variations can be readily detected and characterized in a robust and straightforward way. The rotary design of the Rotor-Gene Q and its outstanding thermal and optical performance are highly suited to HRM.

The HRM option for the Rotor-Gene Q includes:

- A specially tuned high-intensity optical HRM channel
- Thermal resolution of 0.02°C
- High data acquisition rates
- Comprehensive HRM software

The Rotor-Gene Q is the only real-time cycler currently capable of deciphering the most difficult class IV SNPs by HRM. Harness the power of HRM for applications such as:

- Genotyping (Figure 3)
- Quantitative methylation analysis (Figure 4)
- Gene scanning
- Sequence matching

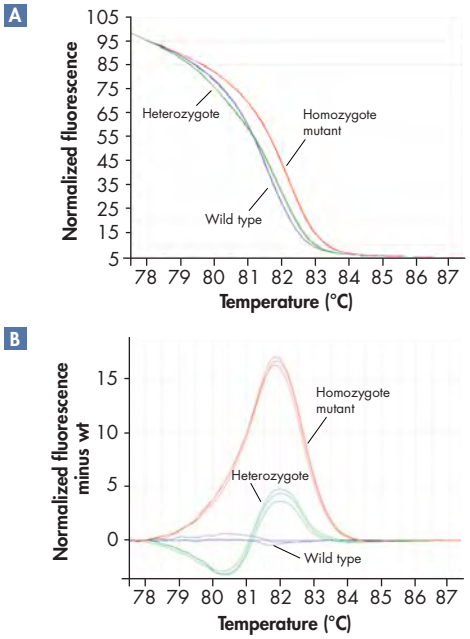


Figure 3. Accurate SNP genotyping by HRM. Human SNP rs60031276 (A to G substitution) in the PPP1R14B gene (protein phosphatase 1, regulatory [inhibitor] subunit 14B) was analyzed on the Rotor-Gene Q using 10 ng genomic DNA of different genotypes and the Type-it™ HRM PCR Kit (available soon). Homozygous wild type (AA, colored blue), homozygous mutant (GG, colored red), and heterozygous (AG, colored green) samples are shown on a A standard normalized melt curve and B a difference plot normalized to wild type (**wt**) samples.

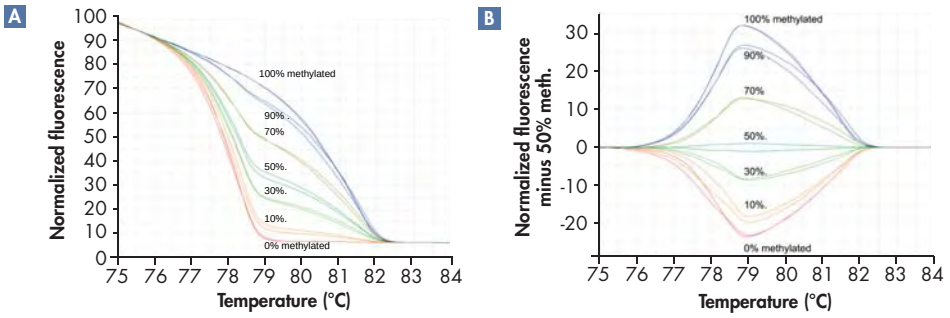
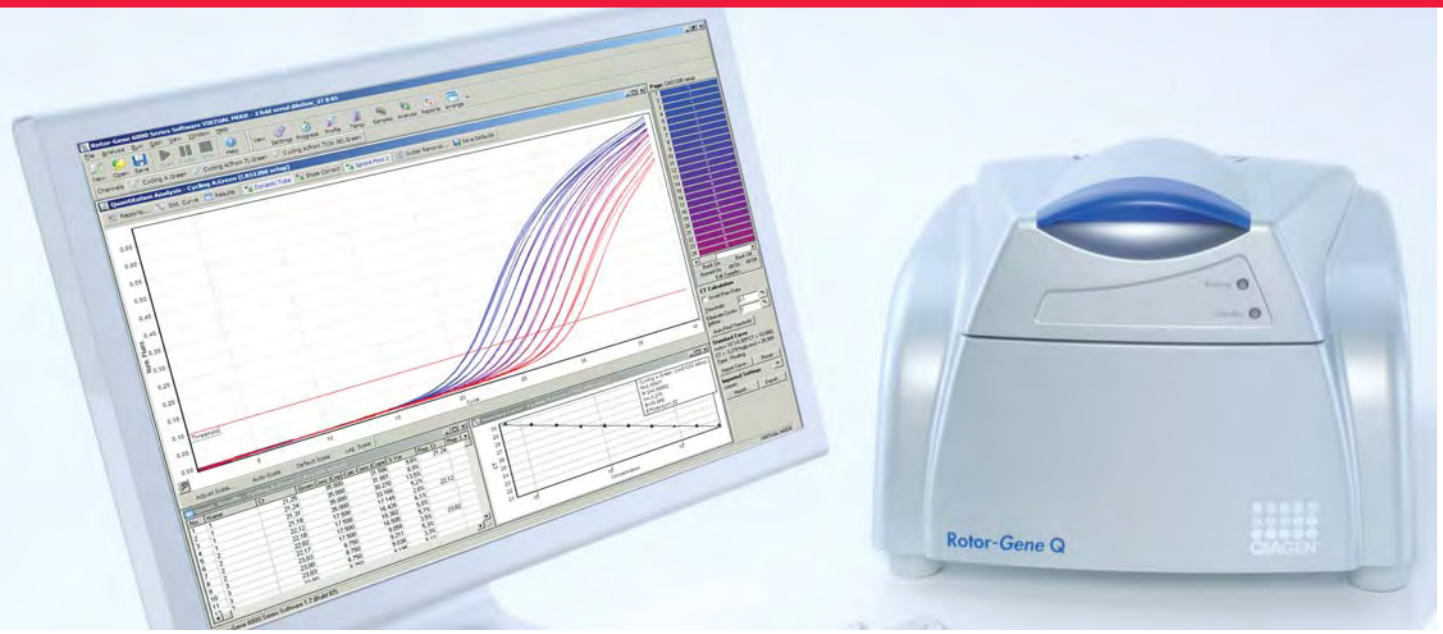


Figure 4. Quantitative methylation analysis by HRM. Various ratios of methylated and unmethylated DNA-APC amplicons (adenomatosis polyposis coli) were analyzed and discriminated by HRM methylation analysis on the Rotor-Gene Q using the EpiTect® HRM PCR Kit (available soon). A A standard normalized melt curve and B a difference plot normalized to the 50% methylated sample are shown.



Software enables quantification and enhances data security

The comprehensive Rotor-Gene Q software package supports all current state-of-the art real-time analysis procedures from basic to advanced algorithms (Table 2). This provides complete freedom to analyze your valuable experimental data and increases the reliability of your results. Data security is assured and all process steps are trackable from starting the run to exporting the results.

Table 2. Analysis procedures supported by Rotor-Gene Q software

Standard curve quantification
Relative quantification by 2 standard curves
$\Delta\Delta C_T$ relative quantification
Comparative quantification
Export to Relative Expression Software Tool (REST)
Export to LinRegPCR (assumption-free analysis)
Melt analysis
HRM analysis
End-point analysis
Allelic discrimination
Scatter plot analysis
Concentration analysis

The easy-to-use software provides:

- Unlimited user licenses and individual user management
- A digital signature for every result file
- Audit trails to track changes made to experiment files
- Various result reports and export functions
- Raw data export for validation purposes

Minimum maintenance, maximum convenience

The Rotor-Gene Q is engineered to reduce the need for maintenance and to maximize ease of use. This saves time and costs and allows you to focus on your research, not on keeping the cycler up and running.

Features of the Rotor-Gene Q:

- Few moving parts and short optical path increase robustness
- No need for optical alignment or calibration
- Highly stable LEDs avoid need to replace lamps/lasers
- Rotary design means there is no block to clean
- Small, light instrument increases ease of use and flexibility in your lab

Easy routine verification

Laboratories may often want to verify thermal accuracy. For most cyclers, this requires interaction with a service engineer. With the Rotor-Gene Q, this is not necessary. Instead, the easy-to-use, cost-effective Rotor-Disc OTV (Optical Temperature Verification) Kit automates accuracy testing. The kit includes a specialized Rotor-Disc filled with temperature-sensitive liquid crystals and dedicated analysis software. The full procedure takes only a couple of minutes.

Reliable support for your peace of mind

In the unlikely event of any service issues with your Rotor-Gene Q, QIAGEN Instrument Service provides comprehensive support services to ensure the continued success of your PCR applications. QIAGEN Instrument Service offers a wide range of flexible Service Support products, giving you peace of mind and letting you enjoy complete coverage and cost control. Our Application Services and Training Programs give you the freedom and flexibility to adapt your system to specific or changing research needs. With ISO 9001/ISO 13485 certification and an international team of highly qualified and experienced Support Specialists, we deliver the high-quality service that you deserve and that your applications demand.

Specifications of the Rotor-Gene Q

View the outstanding technical features of the Rotor-Gene Q and compare to those of alternative cyclers (Table 3).

Table 3. Rotor-Gene Q specifications

Dimensions and weight	Width 370 mm (14.6 in.) x Depth 420 mm (16.5 in.) x Height 275 mm (10.8 in.)
	Depth (door open): 560 mm (22 in.)
	Weight: 14 kg (31 lb.)
Thermal performance	Temperature uniformity: ±0.01°C
	Temperature accuracy: ±0.25°C
	Temperature resolution: ±0.02°C
	Temperature range: Ambient to 99°C
	Temperature equilibration time: Zero seconds
	Peak ramp rate (air): >15°C/second heating; >20°C/second cooling
Optical system	Up to 6 separate channels (365–680 nm excitation, 460–750 nm detection)
	Fixed optical path, separate high-power excitation LEDs and emission filters per channel
	Highly sensitive photomultiplier (PMT) detector with gain setting (sensitivity control)
	Dynamic range: 10 orders of magnitude (assay dependent)
Rotor and well configurations	Rotor-Disc 100: 30 µl x 100 wells, 15–25 µl recommended reaction volume
	Rotor-Disc 72: 0.1 ml x 72 wells, 15–25 µl recommended reaction volume
	Strip Tubes 0.1 ml: 0.1 ml x 72 wells, 10–30 µl recommended reaction volume, strips of 4 tubes and caps
	PCR Tubes 0.2 ml: 0.2 ml x 36 wells, 15–50 µl recommended reaction volume, individual tubes with caps
Typical run time	40 cycles in 45–60 minutes with QIAGEN Rotor-Gene Kits (detection method dependent)
Electrical requirements	100–240 V AC, 50/60 Hz; 560 VA (peak)
Warranty	1 year on instrument; lifetime guarantee on excitation LEDs

Optimized reagents for all your applications

A range of QIAGEN kits for the Rotor-Gene Q enables reliable quantification in all your real-time PCR applications without the need for optimization of reaction and cycling conditions (Table 4). Highly specific amplification is assured through a balanced combination of ions that minimizes nonspecific primer annealing (Figure 5). Fast cycling without compromising performance is achieved using Q-Bond, a novel PCR additive that enables cycler run times of as low as 45 minutes (Figure 6). For challenging multiplex PCR applications, synthetic Factor MP allows different amplicons in the same reaction to all be amplified with the same high efficiency. Factor MP, an innovative PCR additive, increases the local concentration of primers at the template and stabilizes specifically bound primers, allowing efficient primer extension by DNA polymerase.

Table 4. Pure detection for all your applications

Application	Detection method	Procedure	QIAGEN kit	Data
Gene expression analysis (and real-time PCR applications using genomic DNA)	SYBR Green	PCR and two-step RT-PCR	Rotor-Gene SYBR Green PCR Kit	Table 5
	SYBR Green	One-step RT-PCR	Rotor-Gene SYBR Green RT-PCR Kit	Fig. 7
	Probe (singleplex)	PCR and two-step RT-PCR	Rotor-Gene Probe PCR Kit	Fig. 2
	Probe (singleplex)	One-step RT-PCR	Rotor-Gene Probe RT-PCR Kit	Fig. 8
	Probe (multiplex)	PCR and two-step RT-PCR	Rotor-Gene Multiplex PCR Kit	Fig. 9
miRNA detection	SYBR Green	Two-step RT-PCR	miScript SYBR Green PCR Kit	–
Virus detection	Probe (singleplex and multiplex)	PCR, two-step RT-PCR, and one-step RT-PCR	QuantiTect® Virus +ROX Vial Kit	Fig. 10
SNP genotyping	Probe	PCR	Type-it Fast SNP Probe PCR Kit	Fig. 11
	EvaGreen	HRM	Type-it HRM PCR Kit	Fig. 3
Methylation analysis	Probe	PCR	EpiTect MethyLight PCR Kit	Fig. 12
	EvaGreen	HRM	EpiTect HRM PCR Kit	Fig. 4

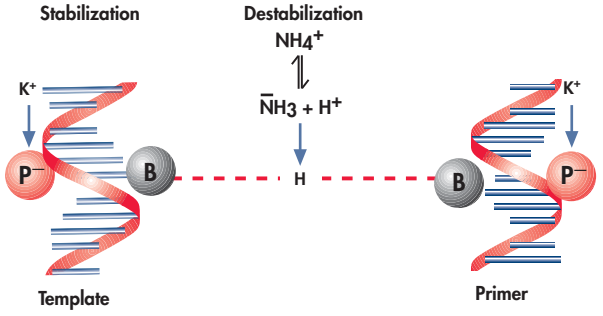


Figure 5. NH_4^+ and K^+ cations in QIAGEN PCR buffers increase specific primer annealing. K^+ binds to phosphate groups on double-stranded DNA, stabilizing primer annealing. NH_4^+ destabilizes weak hydrogen bonds between mismatched bases.

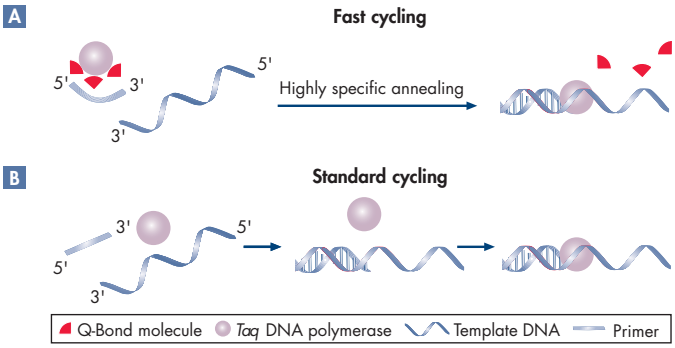


Figure 6. Fast primer annealing. A Q-Bond in Rotor-Gene Master Mix and Type-it Fast SNP PCR Master Mix increases the affinity of DNA polymerase for short single-stranded DNA, reducing primer annealing time to a few seconds. In addition, the unique buffer composition supports the melting of DNA, reducing denaturation and extension times. B Without Q-Bond, the primer and polymerase bind sequentially to the template, increasing primer annealing time.

Gene expression analysis

The combination of Rotor-Gene SYBR Green Kits, QuantiTect Primer Assays, and the Rotor-Gene Q provides a complete, ready-to-run solution for gene expression analysis. QuantiTect Primer Assays are bioinformatically validated primer sets for any gene from human, mouse, rat, and many other species. Assays can be easily ordered online at the GeneGlobe® Web portal (www.qiagen.com/GeneGlobe). When the assays are used together with Rotor-Gene SYBR Green Kits, highly sensitive quantification of specific PCR products is achieved without the need for optimization (Figure 7 and Table 5).

Table 5. Superior performance in RT-PCR with SYBR Green

	QIAGEN		Supplier A_{II}	
	C_T	Mean deviation	C_T	Mean deviation
BAX (BCL2-associated X protein)	24.84	0.05	29.57	0.46
BCL2 (apoptosis gene)	26.96	0.05	32.83	0.29
MYC (proto-oncogene)	28.42	0.21	35.26	0.72
β-Actin (housekeeping gene)	20.24	0.03	24.39	0.12

Human leukocyte cDNA (1 ng) was used as template in SYBR Green-based real-time two-step RT-PCR. Triplicate reactions were run using QuantiTect Primer Assays for 4 different targets: BAX, BCL2, MYC, and β-Actin. The Rotor-Gene Q and Rotor-Gene SYBR Green PCR Kit provided highly sensitive detection, indicated by lower C_T values and lower mean deviations compared to an instrument and kit from Supplier A_{II}.

For gene expression analysis using probe detection, TaqMan Gene Expression Assays can be used in combination with Rotor-Gene Probe Kits on the Rotor-Gene Q for fast and sensitive quantification. Simply add the assay and template to the master mix and follow the optimized protocol. Low-abundance transcripts are reliably quantified, even when performing one-step RT-PCR (Figure 8).

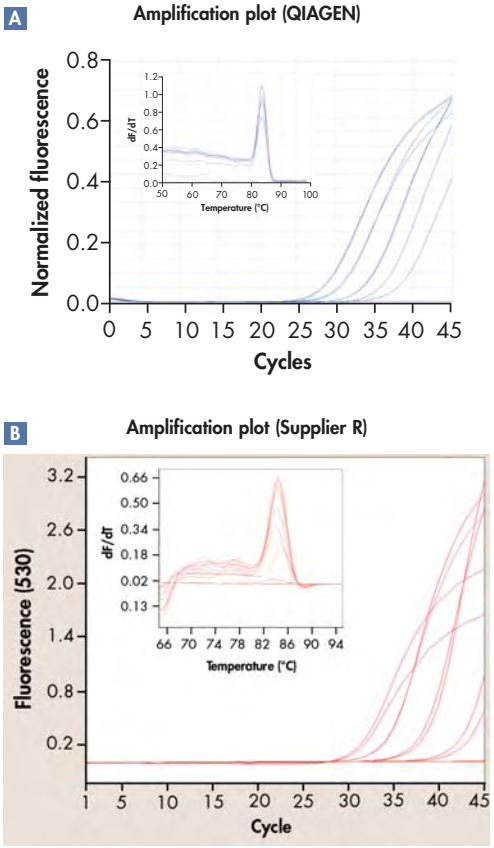


Figure 7. Specific and sensitive detection using SYBR Green. Tenfold dilutions of human leukocyte RNA (100 ng to 10 pg) were used as template in SYBR Green-based real-time one-step RT-PCR. Duplicate reactions were run using the QuantiTect Primer Assay for BCL2 (B-cell CLL/lymphoma 2). A The Rotor-Gene Q and Rotor-Gene SYBR Green RT-PCR Kit provided sensitive detection from 10 pg RNA and amplification of specific PCR product (melting curve shown in inset). B In contrast, an instrument and kit from Supplier R provided detection only after optimization of Mg^{2+} concentration. However, the limit of detection was 100 pg RNA and coamplification of nonspecific products was observed (melting curve shown in inset).

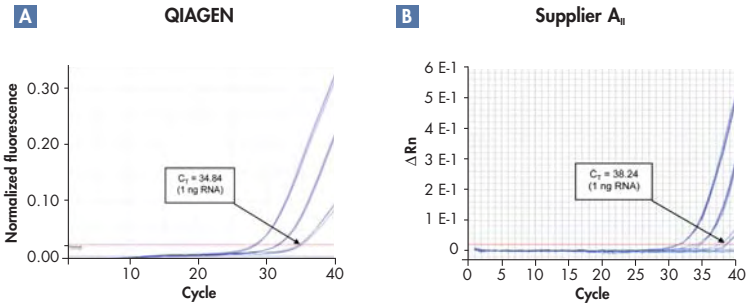


Figure 8. Sensitive detection using sequence-specific probe. Tenfold dilutions of human leukocyte RNA (100 ng to 1 ng) were used as template in real-time one-step RT-PCR. Triplicate reactions were run using a TaqMan Gene Expression Assay for IL12RB1 (interleukin 12 receptor, beta 1). Greater sensitivity (i.e., lower C_T values) was achieved with A the Rotor-Gene Q and Rotor-Gene Probe RT-PCR Kit than with B an instrument and kit from Supplier A_{II}.

The ultimate solution for fast and reliable gene expression analysis is provided by the combination of the Rotor-Gene Multiplex PCR Kit and the Rotor-Gene Q. Up to 4 cDNA targets can be simultaneously and rapidly quantified in the same tube, increasing throughput and saving precious sample material (Figure 9). Genes of different expression levels are all amplified in the same tube with the same high efficiency, enabling reliable relative quantification of gene expression.

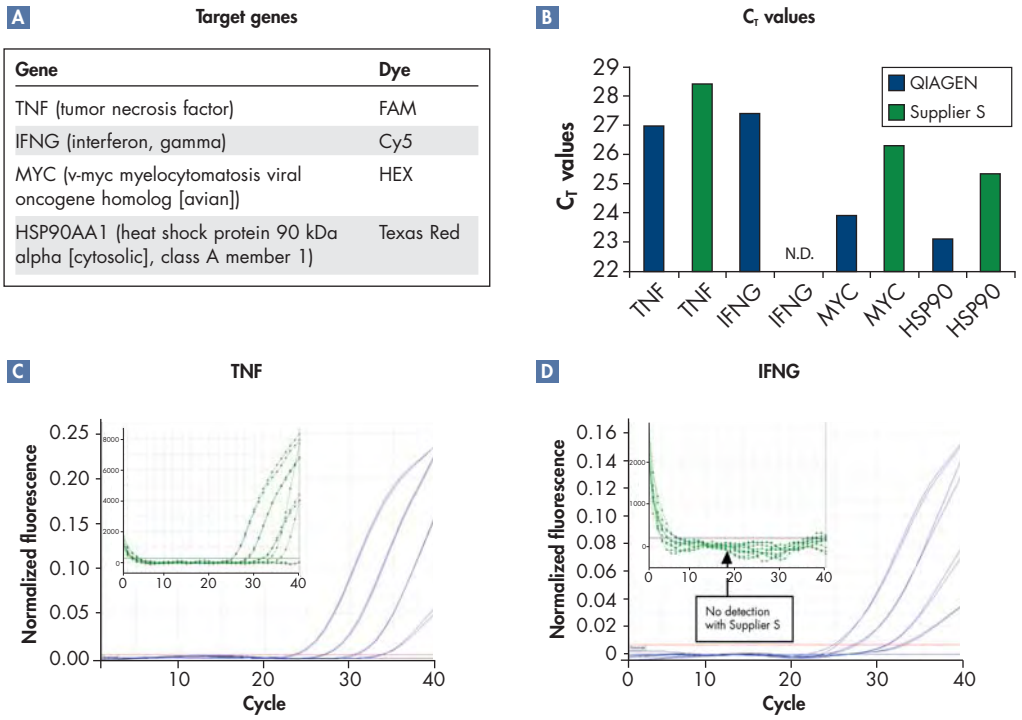


Figure 9. Reliable multiplex analysis. Tenfold dilutions of human leukocyte cDNA (10 ng to 10 pg) were used as template in 4-plex, real-time PCR. Reactions were run in triplicate using either the Rotor-Gene Q and Rotor-Gene Multiplex PCR Kit or an instrument and kit from Supplier S. A Targets amplified, and reporter dyes of corresponding TaqMan probes. B C_T values obtained for all 4 targets (instrument and kit from Supplier S did not successfully detect IFNG; **N.D.**). Lower C_T values on the Rotor-Gene Q demonstrate detection with greater sensitivity. C Amplification plots for TNF (plots for Supplier S in inset). D Amplification plots for IFNG (plots for Supplier S in inset).

miRNA detection

miRNAs play a role in many diverse biological processes and are associated with several cancers and other diseases. For this exciting, emerging research area, QIAGEN offers the miScript PCR System, a three-component system that covers all steps of conversion of miRNA and mRNA into cDNA and detection of miRNAs in SYBR Green-based real-time PCR. Fast and easy reverse transcription using the miScript Reverse Transcription Kit is followed by sensitive and specific miRNA detection using the miScript SYBR Green PCR Kit and a miScript Primer Assay on the Rotor-Gene Q. For more information on the miScript PCR System, visit www.qiagen.com/miRNA.

Virus detection

The combination of the QuantiTect Virus +ROX Vial Kit and the Rotor-Gene Q provides highly sensitive and rapid detection of up to 4 viral DNA and RNA targets simultaneously. A highly concentrated master mix allows larger volumes of template to be added to assays, lowering the limit of detection. Viral nucleic acid targets can be individually detected in singleplex assays or detected together with internal controls in multiplex assays. Multiplex assays enable detection of multiple DNA and/or RNA targets plus internal controls over a wide linear range without loss of sensitivity (Figure 10).

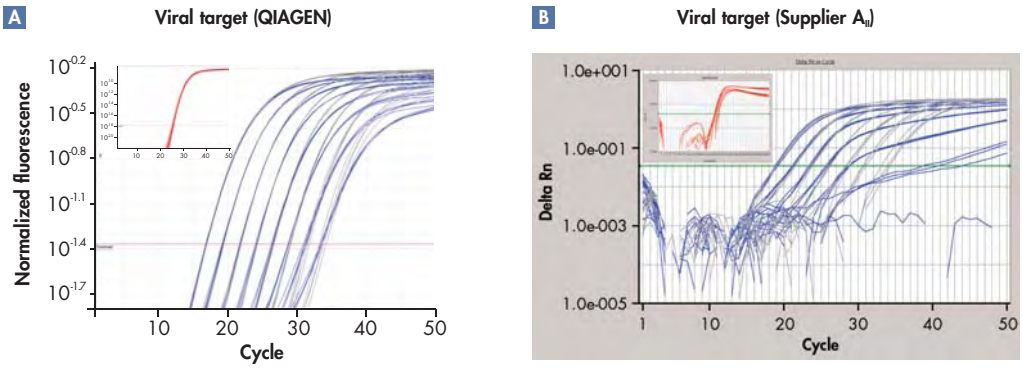


Figure 10. Highly sensitive virus detection. Fivefold dilutions of viral target (influenza B virus RNA) and a fixed amount of internal control (10^4 copies of in vitro transcript) were analyzed by duplex, real-time one-step RT-PCR. For comparison, viral target was also analyzed by singleplex, real-time one-step RT-PCR. Triplicate reactions were run using self-designed TaqMan assays. The Rotor-Gene Q and QuantiTect Virus +ROX Vial Kit provided A sensitive and reproducible detection of viral target over a wide dynamic range (plots for the duplex assay [blue] overlapped with those for the singleplex assay [gray]) and reproducible detection of internal control (internal control shown in inset). B In contrast, an instrument and kit from Supplier A provided unreliable detection of lower copy numbers of viral target (plots for the duplex assay [blue] did not overlap with those for the singleplex assay [gray]) and unreproducible detection of internal control (internal control shown in inset).

SNP genotyping

The Type-it Fast SNP Probe PCR Kit provides accurate SNP genotyping on the Rotor-Gene Q, even for difficult templates or SNPs and low template amounts. Outstanding separation and tight allele clustering ensure high call rates and accurate, reproducible, and reliable genotyping results (Figure 11). The kit is functionally validated with commercially available SNP genotyping assays and compatible with TaqMan MGB probes as well as custom assays consisting of TaqMan MGB, TaqMan, or other dual-labeled probes.

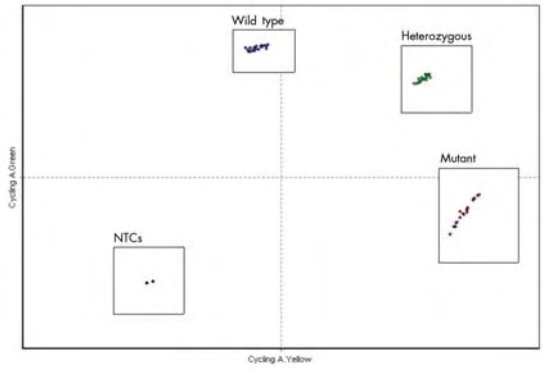
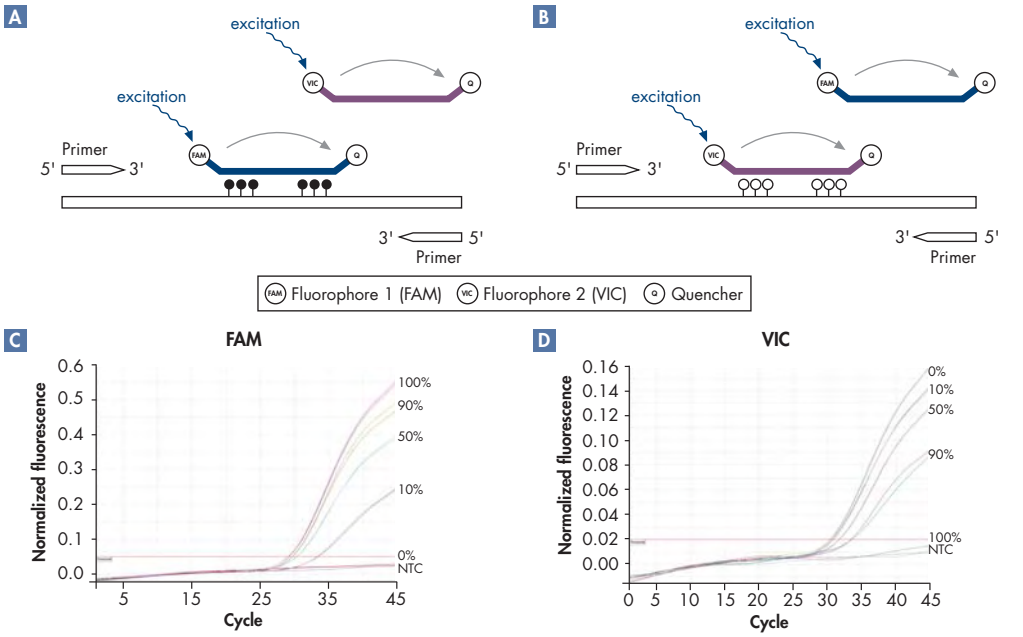


Figure 11. Reliable SNP genotyping even with low template amounts. Allelic discrimination plot analysis was performed with a panel of 70 different genomic DNAs (1 ng each) using the Type-it Fast SNP Probe PCR Kit. PCR was performed on the Rotor-Gene Q with a TaqMan SNP genotyping assay for rs 951134 and two no template controls (NTCs). Black: NTCs. Blue: homozygous DNAs for FAM fluorescence (T allele). Green: heterozygous samples. Red: homozygous for VIC fluorescence (A allele). Even using low amounts of template, tight clustering and reliable genotyping results were observed.

DNA methylation analysis

HRM is a valuable tool for screening for methylation sites (Figure 4, page 5). Once methylation sites have been identified, probe-based techniques can be used for sensitive quantification of CpG sites. Using the EpiTect MethyLight PCR Kit with the Rotor-Gene Q allows sensitive and reliable analysis of methylation status using TaqMan or other dual-labeled probes. Highly accurate quantitative methylation analysis is achieved when the kit is used together with probe-based methylation assays (such as EpiTect MethyLight Assays). Epitect MethyLight Assays consist of PCR primers and 2 probes — one methylation-specific, the other nonmethylation-specific — which can be used in a single reaction to simultaneously detect methylated and unmethylated sites (Figure 12).



Signal methylated:
$C_{T(CG)}$ (FAM) represents the threshold cycle of the CG reporter (FAM channel)

Signal unmethylated:
$C_{T(TG)}$ (VIC) represents the threshold cycle of the TG reporter (VIC channel)

Percentage of methylation:
$C_{meth} = 100/[1 + 2^{(C_{T(CG)} - C_{T(TG)})}]\%$

Defined experimental methylation degree	Mean $C_{T(CG)}$ value (FAM probe)	Mean $C_{T(TG)}$ value (VIC probe)	Calculated methylation degree in % per sample
0% methylation	45	30.37	0.004
10% methylation	34.62	30.72	6.278
50% methylation	31.27	31.67	56.887
90% methylation	30.52	33.43	88.258
100% methylation	30.05	45	99.997

Figure 12. Sensitive detection of small changes in methylation. The EpiTect MethyLight PCR Kit, in combination with a probe-based methylation assay, enables quantification of the methylation status in a sample. The assay consists of 2 methylation sensitive TaqMan probes and 2 methylation insensitive PCR primers. Depending on the methylation status of the targeted sequence, A only the FAM labeled TaqMan probe specific for bisulfite converted methylated DNA or B only the VIC labeled TaqMan probe specific for bisulfite converted, unmethylated DNA can hybridize to the target sequence. The fluorophores are released if the probe hybridizes to the DNA. The fluorescence is proportional to the amount of PCR product. In this experiment, 10 ng bisulfite converted, methylated and unmethylated human control DNA, or mixtures of both DNAs resulting in 90% to 10% methylated DNA, were used in a methylation quantification experiment on the Rotor-Gene Q, with the Hs_TMEFF2 EpiTect MethyLight Assay and the EpiTect MethyLight PCR Kit. The methylation degree was calculated from the C C_T values in the FAM channel with the probe detecting methylated DNA ($C_{T(CG)}$) and D C_T values in the the VIC channel with the probe detecting unmethylated DNA ($C_{T(TG)}$), as shown in the formula above.

Ordering Information

Product	Contents	Cat. no.
Rotor-Gene Q 2plex	Real-time PCR cycler with 2 channels (green, yellow), laptop computer, software, accessories, 1-year warranty on parts and labor	Inquire
Rotor-Gene Q 2plex HRM	Real-time PCR cycler and HRM instrument with 2 channels (green, yellow) plus HRM channel, laptop computer, software, accessories, 1-year warranty on parts and labor	Inquire
Rotor-Gene Q 5plex	Real-time PCR cycler with 5 channels (green, yellow, orange, red, crimson), laptop computer, software, accessories, 1-year warranty on parts and labor	Inquire
Rotor-Gene Q 5plex HRM	Real-time PCR cycler and HRM instrument with 5 channels (green, yellow, orange, red, crimson) plus HRM channel, laptop computer, software, accessories, 1-year warranty on parts and labor	Inquire
Rotor-Gene Q 6plex	Real-time PCR cycler with six channels (blue, green, yellow, orange, red, crimson), laptop computer, software, accessories, 1-year warranty on parts and labor	Inquire
Warranty PLUS 1 Basic, Rotor-Gene Q	2-year warranty, all labor, travel, and parts	9241779
Rotor-Disc 100 Starter Kit	Kit includes: 2 Rotor-Disc 100 packs, Rotor-Disc Heat Sealer, Rotor-Disc Heat Sealing Film, Rotor-Disc 100 Rotor and Locking Ring, Rotor-Disc 100 Loading Block, Rotor-Disc Pipetting Aid	Inquire
Rotor-Disc 100 (30)	Pack of 30 individually wrapped discs for 3000 reactions	981311
Rotor-Disc 72 Starter Kit	Kit includes: 3 Rotor-Disc 72 packs, Rotor-Disc Heat Sealer, Rotor-Disc Heat Sealing Film, Rotor-Disc 72 Rotor and Locking Ring, Rotor-Disc 72 Loading Block, Rotor-Disc Pipetting Aid	Inquire
Rotor-Disc 72 (24)	Pack of 24 individually wrapped discs for 1728 reactions	981301
Strip Tubes and Caps, 0.1 ml (250)	250 strips of 4 tubes and caps for 1000 reactions.	981103
PCR Tubes, 0.2 ml (1000)	1000 thin-walled tubes for 1000 reactions	981005
Rotor-Disc OTV Kit	Kit for optical temperature verification of Rotor-Gene Q systems; requires Rotor-Disc 72 Rotor and Locking Ring or Rotor-Disc 72 Starter Kit	981400
Rotor-Gene SYBR Green PCR Kit (400)*	For 400 x 25 µl reactions: 2x Master Mix, RNase-Free Water	204074
Rotor-Gene SYBR Green RT-PCR Kit (400)	For 400 x 25 µl reactions: 2x Master Mix, RT Mix, RNase-Free Water	204174
Rotor-Gene Probe PCR Kit (400)*	For 400 x 25 µl reactions: 2x Master Mix, RNase-Free Water	204374
Rotor-Gene Probe RT-PCR Kit (400)	For 400 x 25 µl reactions: 2x Master Mix, RT Mix, RNase-Free Water	204574

* Various kit sizes available; please inquire.

Ordering Information

Product	Contents	Cat. no.
Rotor-Gene Multiplex PCR Kit (400)*	For 400 x 25 µl reactions: 2x Master Mix, RNase-Free Water	204774
QuantiTect Primer Assay (200)*	For 200 x 50 µl reactions: 10x QuantiTect Primer Assay (lyophilized)	Varies
QuantiTect Reverse Transcription Kit (50)*	For 50 x 20 µl reactions: Buffers, Quantiscript® Reverse Transcriptase, RT Primer Mix, RNase-Free Water	205311
miScript SYBR Green PCR Kit (200)*†	For 200 x 50 µl reactions: 2x Master Mix, Universal Primer, RNase-Free Water	218073
QuantiTect Virus +ROX Vial Kit (200)*	For 200 x 50 µl reactions: 5x Master Mix, RT Mix, RNase-Free Water, Nucleic Acid Dilution Buffer	211033
Type-it Fast SNP Probe PCR Kit (800)*	For 800 x 25 µl reactions: 2x Master Mix, RNase-Free Water, Q-Solution®	206045
EpiTect MethyLight PCR Kit (200)*	For 200 x 50 µl reactions: 2x Master Mix, RNase-Free Water	59436
EpiTect HRM PCR Kit (100)	For 100 x 25 µl reactions: 2x Master Mix, RNase-Free Water	59445
Type-it HRM PCR Kit (100)	For 100 x 25 µl reactions: 2x Master Mix, RNase-Free Water	206542

* Various kit sizes available; please inquire.

† The kit is part of the miScript PCR System; for details, visit www.qiagen.com/miRNA.

The Rotor-Gene Q, if used in combination with QIAGEN kits indicated for use with the Rotor-Gene Q instrument, is intended for the applications described in the respective QIAGEN kit handbooks. If the Rotor-Gene Q instrument is used with kits other than QIAGEN kits, it is the user's responsibility to validate the performance of such product combination for any particular application.

Rotor-Gene Kits, QuantiTect Kits, and Type-it Kits are intended for research use. No claim or representation is intended to provide information for the diagnosis, prevention, or treatment of a disease. miScript Kits and EpiTect Kits are intended for molecular biology applications. These products are neither intended for the diagnosis, prevention, or treatment of a disease, nor have they been validated for such use either alone or in combination with other products.

Discover more about the Rotor-Gene Q at www.qiagen.com/goto/Rotor-GeneQ!

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