BIOSALAB
MOLECULAR BIOLOGY SOLUTIONS
OPTIMUMGENE ™ SERIES

Q1000/Q1000+ Real-Time PCR System

Block sample capacity: 48 wells * 0.1ml ,
both white & clear low profile PCR tubes can be used

Patented drawer type sample block design,
easy to insert & remove sample

7'' TFT Full Color Touch Screen,
real-time graphical display

T-Optical ™ top detection technology,
greatly reduce backgroud noise

◎The new powerful Peltier technology, fast ramping rate up to 7℃/s.

◎T-Optical™ technology, reduce background noise, improve fluorescence signal sensitivity and signal to noise ratio.

◎Simultaneous detection of wells, not in sequence.

◎User could view qPCR process and run PCR protocol through self-contained 7" TFT LCD and touch screen.

◎Special designed optical system for qPCR, avoiding more moving parts problems like overheat, wear and off center. Not optical fiber based, avoiding break and block.

◎Long life LED lamps to excite fluorescence and detect with SSLP™ CCD imaging technology.

◎Sample wells with temperature gradient function, convenient to optimize PCR conditions.

◎The drawer design of sample block, makes it easier to pick and place PCR tubes and plates.

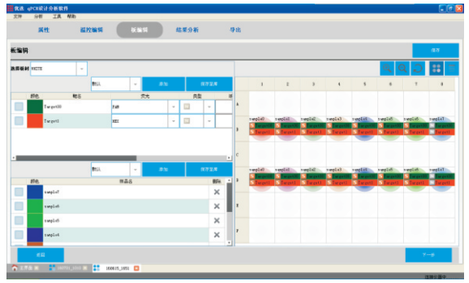
◎The qPCR analysis software could be upgraded for free.

Model	Q1000	Q1000+
	INSTRUMENT PERFORMANCE	
Sample Block Capacity	48 wells * 0.1ml	
Reaction Volume	10–50ul (recommend 20ul)	
Tubes Option	Low profile, white or clear PCR tubes or strips of tubes with optical flat cap	
Heating & Cooling Technology	New generation Peltier technology allow 1,000,000 cycles	
Control Methods	Operated via PC or self-contained touch screen on instrument	
Language	English	
Communications	USB 2.0 & LAN	
Display	7" Color TFT LCD and Touch Screen	
	TEMPERATURE	
Block Temp.Range	0℃~105℃	
Max. Heating Rate	7℃/sec	
Max. Cooling Rate	5℃/sec	
Temp.Uniformity	⩽±0.2℃ at 90℃	
Temp.Accuracy	⩽±0.1℃ (10 seconds after reach 90℃)	
Display Resolution	0.1℃	
Heat Lid Temp. Range	30℃~112℃	
Temp.Control Mode	Block & Calculated sample	
Gradient Range	30℃ ~ 100℃	
Temp.Differential Range	1℃ ~ 24℃	
	FLUORESCENCE DETECTION	
Excitation	Long life LED lamps	
Detection	CCDs	
Dynamic Range	1 ~ 10^{10}	
Sensitivity	⩾1 copy	
Calibrated Dyes at Installation	F1：FAM、SYBR GREEN F2：VIC、HEX、JOE、CY3、NED	F1：FAM、SYBR Green F2：VIC、HEX、JOE、CY3、NED F3：ROX、TEXAS-RED F4：CY5
Fluorescence Excitation Range	300 ~ 800nm	
Fluorescence Detection Range	500 ~ 800nm	
Data Export Formats	EXCEL, TXT	
	Other Features	
AC Power Supply	100 ~ 240V, 50 ~ 60Hz	
Consumption	400W	
Net Weight	8.2 KG	
Dimension (L×W×H)	320×205×380 mm	
Computer Operating Systems	Windows10、Windows7、WindowsXP	

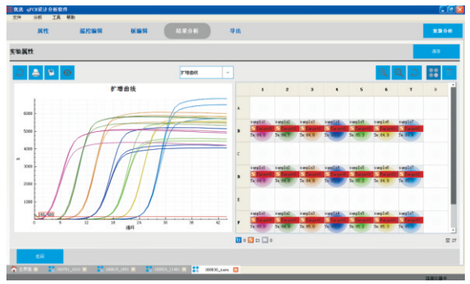
Q1000/1000+ Real–Time PCR System Software

1. Connection via an ethernet cable or via router .
2. Pre–calibrated optics allow you to start using the instrument immediately, no additional calibration is required.
3. Quality control (QC) on data automatically, ensuring reliability of analysis results.
4. Graphical display of protocols, default templates, and real–time run status.

5. Simple and intuitive program, easy to use, without prior reading the user guide thoroughly.
6. PCR protocals can be run via a computer network or in the stand –alone mode (using a USB flash drive)
7. Real–time monitoring of amplification curve or melt curve via the 7'' display and touch screen.
8. Intuitive qPCR plate setup.



9. Thermal gradient capability for optimizing PCR reaction temperatures.
10. Protocols and plate setups can be saved as templates for future use.
11. Multitasking software, able to analyze multiple experiments at the same time.



12. Varieties of Data Analysis Methods are include.

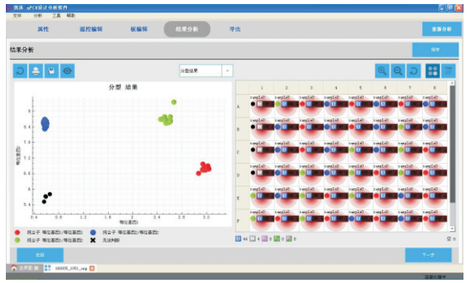
(1) Standard curves for absolute quantification

(2) Melt–curve to verify product identity

(3) Relative quantification for gene expression analysis, with multiple reference genes & amplification efficiency correction

(4) Allelic discrimination (SNP Genotyping) using two allele–specific probes, with automated calling & quality–value assignment

(5) Presence/Absence (Plus/Minus) assays with/without internal positive control (IPC) for pathogen detection



13. A variety of algorithmsare included, such as auto–baseline, manual–baseline, auto–threshold, manual–threshold, amplification efficiency (E), able to streamline data analysis.
14. Export results to .xls, .txt.

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