

PCR-6000

Real-Time PCR Analyser

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The PCR-6000 is a real-time quantitative fluorescence PCR system designed to meet the experimental needs of high-end users.

It has various advantages including advanced efficient temperature control system and photoelectric system, powerful and easy-to-use software analysis function, and a user-friendly control method.

The analyser can easily process downstream multiplex gene detection, quantitative analysis, SNP analysis, dissociation curve analysis and other applications.

Features

- Rapid heating and cooling, with a maximum heating rate of $6.1^{\circ}\text{C}/\text{s}$, a maximum cooling rate of $5.0^{\circ}\text{C}/\text{s}$, and a temperature uniformity of $\pm 0.1^{\circ}\text{C}$
- High-brightness, maintenance-free LED light source with 6 fluorescence detection channels for rapid fluorescence scanning
- With a 10.4-inch full-colour touchscreen, the device can operate independently from the computer and store data of over 1,000 experiments



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Efficient Fluorescence

The 6 fluorescence channels are compatible with most of the common fluorescent dyes and probes of regular detection reagents. Specifically, the FRET (Fluorescence Resonance Energy Transfer) channel enables lower background fluorescence value and higher sensitivity for your detection needs. Also, the high-brightness, long-life LED light source can be maintenance-free for life.

Powerful Temperature Control

maximum heating ramp rate is $\geq 6.10\text{C/s}$, and the maximum cooling ramp rate is $\geq 5.00\text{C/s}$, for quicker completion of your assays; the temperature accuracy is $\leq 0.1\text{OC}$ to ensure accurate results.

Easy to Operate

Automated sample chamber; cloud-enabled control from PC via network connection or stand-alone operation with the built-in 10.4-inch touch screen. Data storage of at least 1,000 experiments within the instrument.

Powerful Software

Capable of various data analyses to meet the needs of most experiments, including qualitative analysis, absolute quantitative analysis, relative quantitative analysis, end-point fluorescence analysis, melting curve analysis, etc. Featured Power Failure Protection design for no more concern about instantaneous power failure.

Data Display



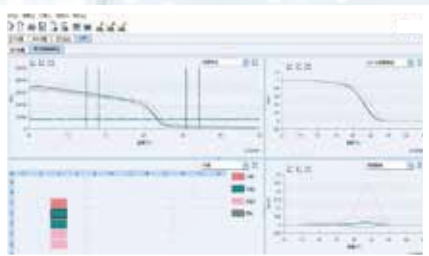
Consistency



Endpoint Fluorescence Genotyping



Melting Curve Analysis example 1



Melting Curve Analysis example 2

Areas of Applications

Real-Time PCR System is designed for experimental analyses characterized by Polymerase Chain Reaction (PCR) for the purpose of DNA/RNA detection, and can be widely used in a variety of areas including clinical diagnosis, epidemiological monitoring, food safety, forensics and scientific research, etc.



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Technical Specifications

Fluorescence Channels	6
Sample Throughput	96
Compatible Fluorophores	Channel 1: FAM, SYBR Green I, SYTO 9, EvaGreen, LC Green Channel 2: HEX, VIC, TET, JOE Channel 3: ROX, Texas Red Channel 4: Cy5 Channel 5: Alexa Fluor 680 Channel 6: FRET
Lightsources	High-brightness, long-life, maintenance-free LED
Detector and Detection Position	Photodes (PDs), excitation and scan at top
Detection Method	Simultaneous well-by-well scanning of all fluorescent channels, without edge effects
Detection Duration	Detection of 96 wells of all channels completed in 7sec.
Heating Rate	Maximum heating rate of $\geq 6.1^{\circ}\text{C}/\text{sec}$; Average heating ramp rate $\geq 4.5^{\circ}\text{C}/\text{sec}$.
Cooling Rate	Maximum cooling rate of $\geq 5.0^{\circ}\text{C}/\text{sec}$; Average cooling ramp rate $\geq 2.8^{\circ}\text{C}/\text{sec}$.
Temperature Uniformity	$\pm 0.1^{\circ}\text{C}$
Temperature Accuracy	$\leq 0.1^{\circ}\text{C}$
Special Temperature Setting Function	Support PCR assays of up to 12 thermal gradients, Long PCR, Touch Down PCR
Analytical Functions	Qualitative analysis, absolute quantitative analysis, relative quantitative analysis, endpoint fluorescence analysis, dissociation curve analysis, and SNP analysis, etc.
Sample Linearity & Repeatability	Linearity: $r/\geq 0.999$, Repeatability: cycle threshold (Ct) value $\text{CV} \leq 0.5\%$
Suitable Consumables	0.2 ml 96-well plate, 8-tube strips, single-tube strips (transparent, matte, and cream)
Control Method	Stand-alone operation: 10.4-inch touchscreen control; Network operation: PC software control via direct connection or LAN (local area network)
Power Failure Protection	Automatic recovery of the experiment and other functions when the power is on again after cutting off, without waiting for the power-on of the computer or software control
Data Storage	Each machine can store more than 1000 experimental data files, which can be imported and exported via USB disk drives
Customized Reporting	Lab report templates of various industries pre-stored Open and universal reporting function, user-definable report content and form
LIS Functions	Open data port, synchronized interconnection with LIS system
Dimensions	355mm x 475mm x 484mm
Weight	30 Kg
Power Supply	AC 220 V, 50 Hz 900VA



Prestige
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