Bring Technology to Life

TIAN LONG

Gentier Sp96E/R

Real-Time PCR System

High-performance system to meet diverse needs

Gentier Sp96E/96R is the latest series of real-time fluorescence quantitative PCR systems developed by Tianlong. It adopts a CMOS-based imaging detection system and offers 6-color/4-color fluorescence channels, with a throughput of 96 samples (replaceable 384-well module under development). The system enables faster fluorescence detection, more efficient thermal control, higher accuracy, and improved stability, fully meeting the diverse needs of clinical diagnostics, public health control, food safety, and scientific research.

- **Faster Detection**
- **Excellent Thermal Block**
- **High-sensitivity HRM analysis**



FEATURES

Powerful Optical System
Equipped with a CMOS sensor, and high-brightness, maintenance-free LED light source, offering faster scanning speed and enhanced stability.

Precise Temperature Control
Maximum heating rate ≥8.0℃/s and maximum cooling rate ≥6.5℃/s. Temperature uniformity and accuracy are both within ±0.1℃, effectively ensuring precise and reliable results.

Comprehensive Software Function
Supports multiple analysis modes and allows to preload or customize report templates for different industries. Data can be exported in various formats such as CSV, Excel, and TXT, fully meeting diverse user needs.

Simple and Flexible Operation
Capable of running in stand alone mode or being controlled via a computer, adapting to different application scenarios. Features a modular architecture designed for seamless switching between 96&384 module without tools once the 384 module is available.

User-friendly Design
Provides power failure protection with automatic resume upon restart, in case of unexpected situations. A long-duration low-temperature hold can be set to enable automatic preservation of amplified products.

SPECIFICATIONS

Model	Gentier Sp96E	Gentier Sp96R
Throughput	96	
Suitable Consumables	0.2mL 96-well plates,8-tube strips,single tubes(clear,frost and white)	
Reaction Volume	0-100uL	
Fluorescence Channels	6	4
Optical System		
Lightsource	High-brightness, long-life and maintenance-free LED light source	
Detector	CMOS, top scanning	
Dye Compatibility	Channel 1：FAM,SYBR Green I,etc Channel 2：HEX,VIC,TET,JOE,etc Channel 3：ROX,Texas Red,etc Channel 4：Cy5,etc Channel 5：Cy5.5,Alexa Fluor 680,etc Channel 6：Cy3,Tamra,NED,etc	Channel 1：FAM,SYBR Green I,etc Channel 2：HEX,VIC,TET,JOE,etc Channel 3：ROX,Texas Red,etc Channel 4：Cy5,etc
Sample Dynamic Range	1-10^{10}copies	
Fluorescence Testing linearity and Repeatability	Repeatability:cycle threshold(ct) value CV≤0.5%　Linear Correlation:r≥0.990	
Thermal Block		
Heating Method	Peltier,Semiconductor refrigeration technology	
Max Heating Rate	**≥8.0℃/s**	
Max Cooling Rate	**≥6.5℃/s**	
Uniformity	**±0.1℃**	
Accuracy	≤±0.1℃	
Consistency	≤±0.1℃	
Gradient Interval Range	0.5℃-50.0℃	
Gradient Block	12 row	
Sample Testing linearity and Repeatability	Repeatability:cycle threshold(ct) value CV≤2%　Linear Correlation:/r/≥0.999	
Melt Performance	Tm Precision:For various genotype,CV≤1.5% Tm Resolution: For same genotype,Tms≤1.0℃ **HRM Data Sampling Frequency: Maximum 25 times/℃**	
Special Temperature Protocol	Thermal gradient PCR,Long PCR,Touch Down PCR,etc	
Software Function		
Control Modes	Model:13.3 inch touch screen, stand alone Mode2:PC direct control, control 10 instruments with one PC.	
Power Failure Protection	Automatically start running experiments after power supply, no need to wait PC software	
Sample Cabin	Automatically open/close controlled by touchscreen.	
Transport Lock Detection	Automatically detect the condition of transport lock.	
Fault Management	Intelligently define the type of error and manage it.	
Key Applications	Absolute quantification, relative quantification, melting curve analysis, genotyping, HRM, end-point fluorescence,etc	
Others		
Power Supply and Power Consumption	AC 100~240V, 50/60Hz, 1500VA	
Weight	44kg	
Dimension and Weight	536mm（L）×335mm（W）×502mm（H）	

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