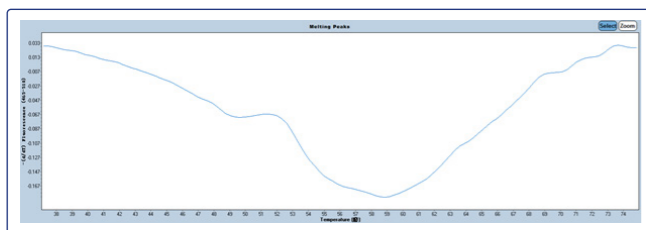
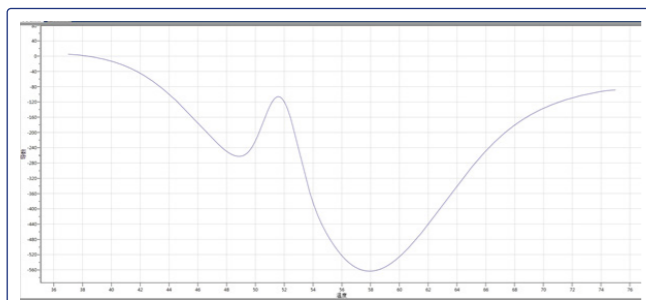


### Case 3: Melting curve---Comparative test with an imported brand instrument



The melting curve of an imported brand instrument

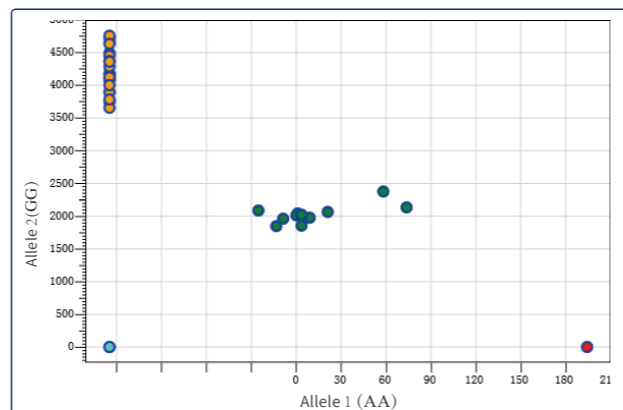


The melting curve of Bioer QuantGene 9600 instrument

#### Test summary:

It can be seen from the melting curve of the above comparison test that, based on the same test conditions, the melting curve of QuantGene 9600 real-time Fluorescence Quantitative PCR analyzer has more obvious peak effect and higher fluorescence detection sensitivity.

### Case 4: End-point fluorescence genotyping --- KASP genotyping test



#### Genotyping verification results:

Serial number	Genotype	Whether there is a genetic mutation	Reaction on alcohol
1	GG	NO	No response
2	GA	YES	Blush
3	AA	YES	Allergy

#### Test summary:

Summary: From the experimental data shown in the chart, it can be seen that genotypes and phenotypes are consistent, indicating that the results of KASP genotyping test are correct.

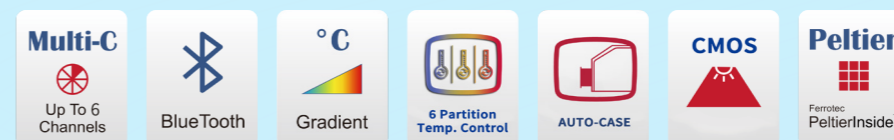
## ► Product Parameters

Product name						
QuantGene 9600 Fluorescent Quantitative Detection System						
Product model						
FQD-96C						
Sample size						
96×0.2ml (Suitable for single tube, 8 strip tube and 96-well plate (non skirt & half skirt))						
Detection channel						
F1 F2 F3 F4 F5 F6						
Applicable dye						
FAM, SYBR Green I VIC, HEX, TET, JOE ROX, TEXAS -RED Cy5 Quasar -670 Cy5.5 Quasar -705 Optional						
Module operating temperature range						
4°C ~ 99.9°C (Minimum setting scale: 0.1°C)						
Max heating rate						
6°C/s						
Max cooling rate						
5.5°C/s						
Module temperature control accuracy						
Should be no greater than 0.1 °C						
Temperature uniformity						
The temperature difference is within ±0.3°C						
Temperature control accuracy of hot cover						
105°C±5°C						
Fluorescence intensity test repeatability						
CV≤3%						
Mode of operation						
Continuous operation						
Operating system						
Windows XP/Windows Vista/Windows7/Windows8						
Input power						
100-240V ~ 50Hz 1000VA						
Overall dimensions						
490mm×290mm×391mm						
Weight						
28kg						

\*Effect value tested in standard lab environment.

# QuantGene 9600

## Fluorescence Quantitative PCR Detection System

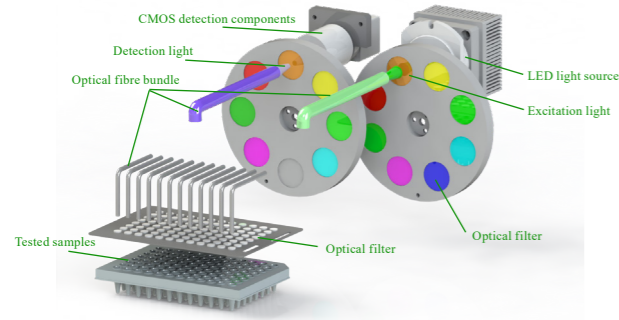


## ► Product Description

QuantGene 9600 is based on the excellent quality of the LineGene family, using the very mature thermoelectric refrigeration technology, a new light source and optical circuit design. The unique constant current power supply and 6-zone independent temperature control method ensure that the product is fast, accurate and stable in fluorescence quantitative analysis. The product adopts modular design, with a variety of configuration options, at the same time, the addition of temperature gradient, sample 4°C cryopreservation, automatic dehumidification and other functions, fully meet the scientific research and clinical medical needs.



## ► Product Features



### Top imaging photoelectric detection

- Top imaging technology was adopted to collect 96-well fluorescent signals without detection time difference. Fast detection, single channel detection need only 1 second;
- A new array of flat-field light source can greatly improve the excitation optical effect and enhance the fluorescence signal;
- The excitation and detection channels adopt independent filter wheels, which can cope with secondary excitation detection experiments without expanding the channel, such as the application of double hybrid probe;
- The cluster conduction design of high-end optical fiber is adopted to improve the fluorescence signal strength, reduce the optical conduction loss, and eliminate the edge optical path difference without calibration.

### 6 partition thermal cycling module



- The use of 72 series long life semiconductor refrigeration (Ferrotec Peltier), its life is three times higher than that of traditional TE;
- Micro heat pipe array technology, improve the heat conduction efficiency;
- 6 partition accurate and independent temperature control, improve the reaction speed;
- High temperature uniformity, fast ramping speed;

### Automatic pop-up sample bin

- Automatic pop-up sample warehouse design, easy to operate.



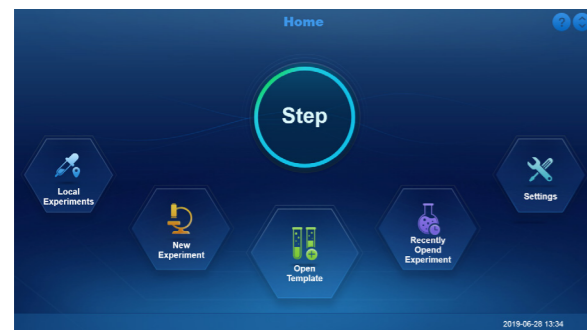
### Intelligent adjustable hot cover



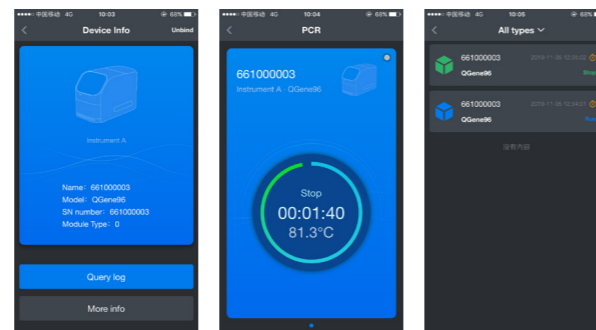
- Built-in high sealing hot cover to avoid reagent volatilization;
- The hot cover can be automatically adjusted to fit various kinds of test tubes.

### Full adaptable software system

- Large touch screen software operation, new humanized operation interface, greatly improve customer's experience;
- Equipped with mobile phone/tablet APP to realize remote operation and real-time monitoring by users;
- The new UI design of international standards, to adapt to the mainstream market users at home and abroad operating habits;
- Flexible program setting, comprehensive analysis and reporting functions, all parameters can be stored;
- Intelligent software system, no need for debugging gain, wide range of linear analysis, good reproducibility of experimental results.



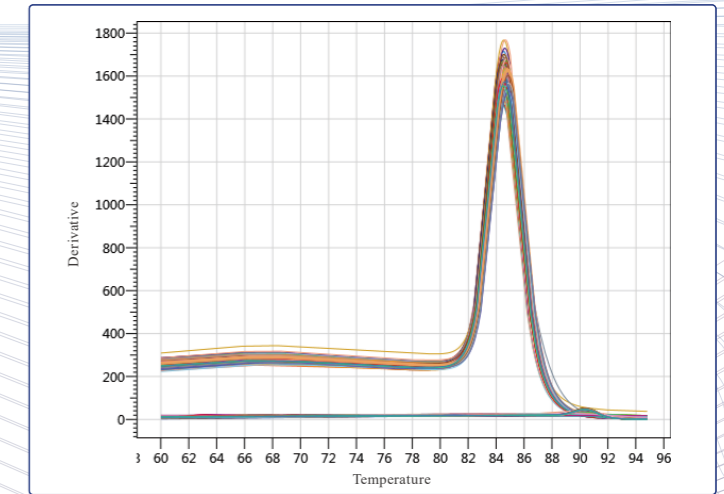
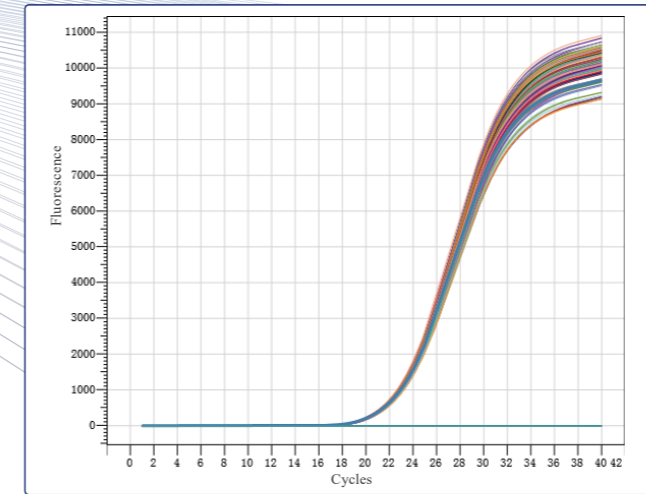
Touch version software



APP software

## ► CASES

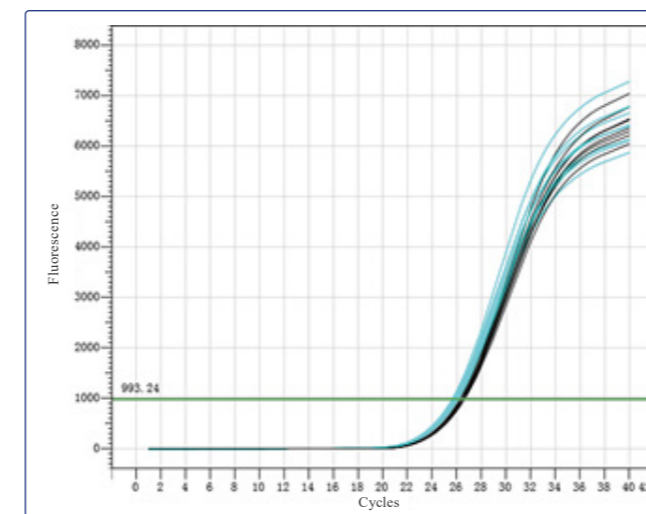
### Case 1: Absolute quantification---- Fluorescence detection consistency test



Ct value	1	2	3	4	5	6	7	8	9	10	11	12
A	24.48	24.45	24.46	24.51	24.4	24.44	24.37	24.35	24.33	24.36	24.43	24.4
B	24.4	24.47	24.4	24.43	24.38	24.43	24.44	24.48	24.43	24.44	24.39	24.4
C	24.45	24.49	24.43	24.35	24.49	24.38	24.32	24.46	24.4	24.45	24.43	24.34
D	24.44	24.51	24.4	24.41	24.36	24.43	24.3	24.39	24.41	24.46	24.44	24.43
E	24.46	24.37	24.45	24.41	24.36	24.3	24.41	24.51	24.32	24.43	24.38	24.37
F	24.37	24.43	24.43	24.37	24.42	24.38	24.38	24.35	24.35	24.35	24.39	24.39
G	24.35	24.39	24.5	24.34	24.37	24.44	24.45	24.45	24.42	24.32	24.37	24.47
H	24.4	24.42	24.37	24.37	24.44	24.42	24.37	24.32	24.47	24.42	24.39	24.36

**Test summary:** The test data of 96 samples shown in the figure above were analyzed according to the baseline threshold method: avgCt=24.40667, std=0.049133, and CV=0.2%, indicating that QuantGene 9600 real-time fluorescence quantitative PCR analyzer had very good repeatability in fluorescence detection wells.

### Case 2: Absolute quantification-fluorescence detection sensitivity test



Serial number	1.5 x concentration Ct value (blue curve)	1 x concentration Ct value (black curve)	Ct differential
1	26.39	26.65	0.26
2	25.92	26.77	0.85
3	26.16	26.7	0.54
4	26.1	26.52	0.42
5	26.15	26.79	0.64
6	26.24	26.62	0.38
7	26.08	26.79	0.71
8	25.92	26.88	0.96
The average Ct	26.120	26.715	0.595

**Test summary:** Summary: as shown in the figure above, it can be seen from the 1.5 times concentration of the HBV fluorescence quantitative detection kit that the measured mean Ct value of 1.5 times concentration is 0.595 different from that of 1 times concentration (the theoretical Ct value should be 0.58 different), indicating that the fluorescence detection sensitivity of QuantGene 9600 real-time fluorescence quantitative PCR analyzer is high.