

HG-P960 Real-time PCR System

The HG-P960 utilizes very mature thermoelectric refrigeration technology, a new light source, and an optical circuit design. The unique constant current power supply and 6-zone independent temperature control method ensures that the product is fast, accurate, and stable in fluorescence quantitative analysis. The product adopts a 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 meeting the scientific research and clinical medical needs. Multi-channel fluorescent excitation is transmitted uniformly throughout each of the 96 sample wells for real-time detection of signal amplification via high-temperature resistant optical fibers. The HG-P960 offers fully automatic qualitative PCR capability with a completely open system for flexible experimentation.

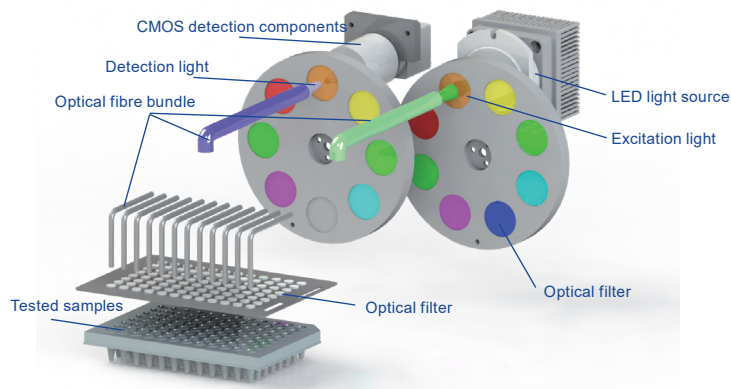
Product Features

- Top imaging photoelectric detection
- 6 partition thermal cycling module
- An automatic pop-up sample bin
- Intelligent adjustable hot cover
- Full adaptable software system



Product Parameter

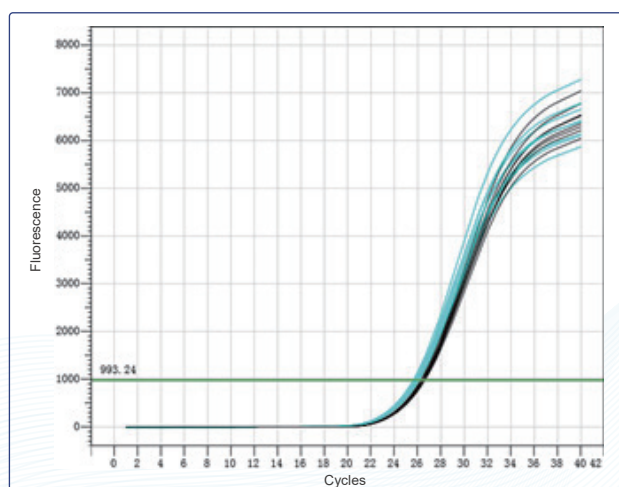
Sample Capacity	96 wells	Excitation Wavelength	300nm-800nm
Reaction Volume	10-100μL	Measurement Channel Number	4 channels
Gradient Control	6 zone temperature control	Weight	28Kg
Temperature Accuracy	±0.1°C	Power Supply	100-240VAC, 50/60Hz 100VAC
Temperature Range	30-110°C adjustable, default 105°C	Dimensions	490*290*391mm



Top imaging photoelectric detection

- The 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 the flat-field light sources 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 adapted to improve the fluorescence signal strength, reduce the optical conduction loss, and eliminate the edge optical path difference without calibration.

Case 1: Absolute quantification-fluorescence detection sensitivity test

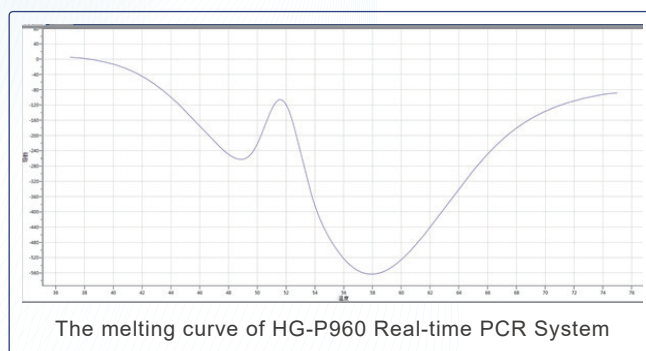
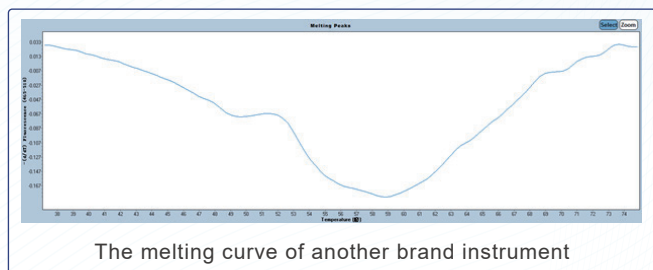


Serial number	1.5 x concentration Ct value (blue curve)	1 x concentration Ct value (black curve)	Ct differential
1	26.39	26.65	0.26
2	25.92	26.77	0.85
3	26.16	26.7	0.54
4	26.1	26.52	0.42
5	26.15	26.79	0.64
6	26.24	26.62	0.38
7	26.08	26.79	0.71
8	25.92	26.88	0.96
The average Ct	26.120	26.715	0.595

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 HG-P960 Real-time PCR System is high.

Case 2: Melting curve---Comparative test with an imported brand 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 HG-P960 Real-time PCR System has more obvious peak effect and higher fluorescence detection sensitivity.