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ГТЗ

Technological innovation–Incomparable persistent pursuit and challenge

- In 2000, it was the first one in the world to create the six-zone temperature control of heating module.
- In 2000, it was the first one in the world to create light source and emission source through the transmission of optical fiber.
- In 2003, six independent channels of quantitative fluorescence multiple detection were created.
- In 2005, created the technology of infrared heating synchronous temperature module.
- In 2008, created the humanized combination of Windows workstation and mainframe.
- In 2012, Realized FRAT function.
- In 2015, created the thermal superconductivity technology of temperature module.

To be better—The ultimate choice for qPCR

Based on the development and promotion of PCR for many years, combined with the optimization of innovative hardware, structure and software, we has launched a new real–time fluorescence quantitative PCR system.

Main performance and characteristics

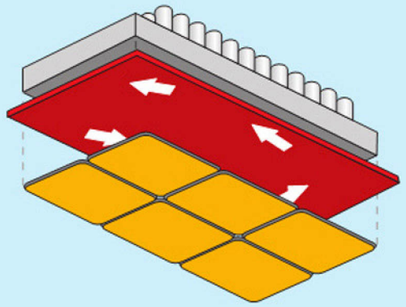
- Six independent temperature control
- Thermal compensation technology of temperature module
- No edge effect of temperature and optics have
- Maintenance–free long – life continuous spectral excitation source
- Synchronous and fast acquisition of low temperature CCD 0.15s in cold state
- Relative quantitative high sensitivity 1.5 times effective discrimination
- Flexible, open and user–friendly software platform
- Open reagent consumable platform
- Gold team, intimate service, let you have no worries about your experiment

Main applications:

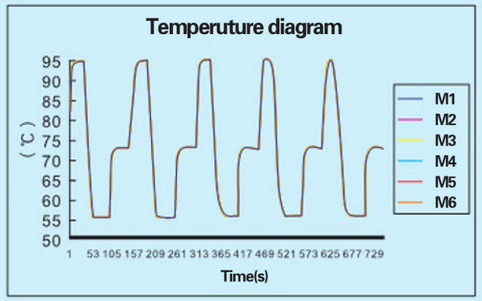
- Basic materials research
- Pathogen detection
- Public health safety surveillance
- Meat products adulterated
- Transgenic testing
- Food safety inspection
- Drug development and rational drug use
- Precise tumor treatment
- Gene expression
- Genetic screening
- Genotyping
- Stem cell research

Temperature control technology and innovation

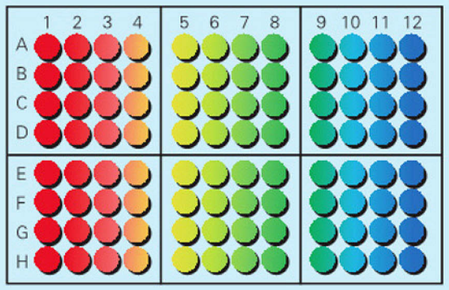
On the basis of the six independent temperature control technology, using the enclosed liquid heat transfer efficiency, combined with environmental scanning monitoring regulation auxiliary infrared with heating and intelligent variable frequency system voltage, current, ensures the module heating speed, effectively prevents temperature overshoot, no edge effect and the evaporation temperature, not only saves your precious time to amplify the required temperature uniformity and the repeatability of the results achieved perfection, no matter what kind of test mode, application, it can get good data uniformity and repeatability.



- Peltier
- Platinum Sensors



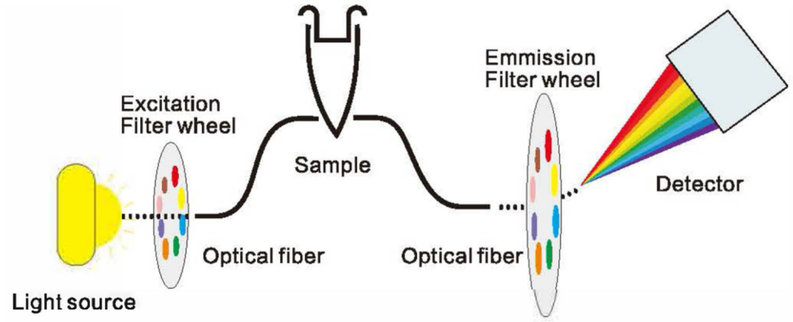
Temperature control repeatability diagram of 6 temperature zones



Renderings of different temperature distributions of reaction plate

The world's leading optical detection technology and advantages

On behalf of the world's leading optical transmission and collection technology, use optical fiber after the excitation light source for reaction system and the emission of light from the reaction system after excitation, the energy attenuation without conduction to each reaction holes and cold CCD, from physical properties to ensure consistency and authenticity of the excitation and detection, and greatly improve the detection sensitivity, can make your low effective detection and distinguish easily copy sample.The channel mismatch function is added to extend the application field of qPCR to the protein level and provide a new way for the construction of multiple systems of diagnostic reagents.

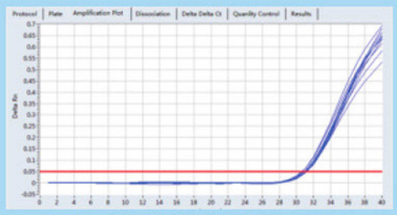


Channel	Excitation wavelength (nm)	Emission wavelength (nm)	Examples of fluorescent dyes
1 Blue	460~480	512~528	FAM/SYBR Green I/EvaGreen…
2 Green	515~535	562~578	VIC/JOE/HEX/TET…
3 Yellow	560~580	612~628	ROX/Texas Red…
4 Red	610~630	662~678	Cy5…
5 Red	660~680	702~718	Cy5.5/Quasar705…
6 customizable			

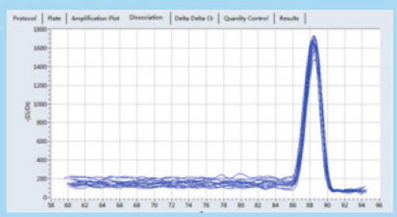
- ◆ Channel combination: 6-color excitation light filter and 6-color detection light filter can detect ≥21 different fluorescence spectra, ≥6 channels are completely open, supporting third-party reagent optimization Support FRET application.
- ◆ Multichannel static fluorescence function: analysis of starting template and end product.
- ◆ Filter can be customized according to customer needs.

Software platform

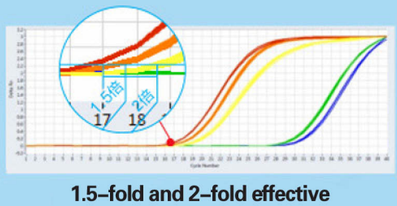
Real–time monitoring, automatic discrimination and calculation of positive and negative results, automatic establishment of standard curve, absolute/relative quantitative, multiple quantitative, fusion curve, gene mutation, quality control graphic analysis, fluorescence correction, PCR amplification efficiency, high–resolution fusion curve (optional match), etc.



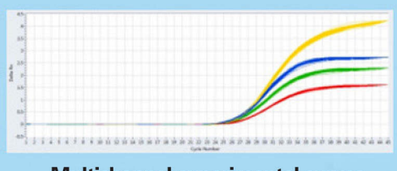
Weak positive repeatability verification



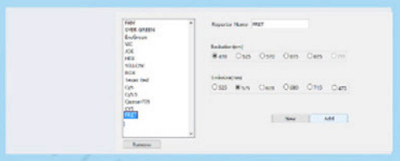
Melting curve validation



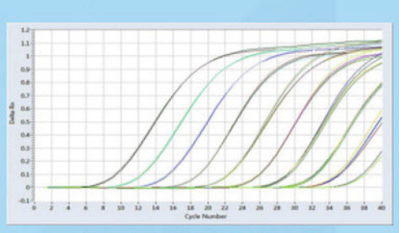
1.5–fold and 2–fold effective distinction result examples



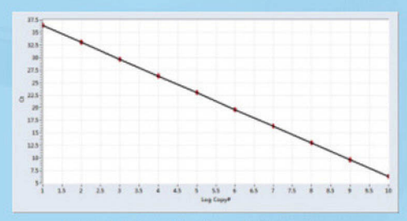
Multichannel experimental curves (FAM, VIC, ROX, Cy5)



Channel free combination



10 to10^{10} Copy template validation



10 to 10^{10} Copy the gradient standard curve for verification

● Application software in Chinese and English can be switched, suitable for Win7, WinB, Win10, etc.

Performance parameters

Name	Parameter
Tube capacity	96x0.2ml
Apply consumables	0.2ml single tube, 8x0.2ml row tube, 96–hole plate (applicable to domestic tube)
Temperature control range	4℃~99℃
Heating speed	3.5℃/S
Cooling speed	3℃/S
Temperature control accuracy	0.1℃
Temperature uniformity	±0.25℃
Temperature accuracy	±0.1℃
Number of temperature control areas	6
Excitation light source	Full–wavelength maintenance–free halogen tungsten lamp
Excitation light wavelength range	380nm~780nm
Number of excitation channels	5（Can be extended to 6 channels）
Detector	-20℃ CCD
Detected light wavelength range	380nm~780nm
Detection channels number	5（Can be extended to 6 channels）
Suitable dyes and probes	FAM/SYBR Green/Eva Green/LC Green/Fluorescein,VIC/HEX/TET/Cy3/ Cy3.5/JOE/Yellow555, ROX/Texas Red,Cy5/Cy5.5/LC Red,Tamara
Confidence	It can effectively distinguish 5000 and 10000 copies with 99.8% confidence degree
Software functions	Absolute quantification, Relative Quantification, Genotyping, Amplification efficiency calculation, Melting curve.
Hot cover	Electric hot cover
Automation platform	It can be used with automatic workstation to improve work efficiency
Data output form	User Settings
Power supply	100~240V, 50~60Hz