

## Nucleic Acid Extraction Kit (Magnetic Beads Method) Plasmid DNA



### Introduction:

Plasmid nucleic acid extraction kit (magnetic bead method) adopts magnetic bead and buffer system with unique separation function, combines magnetic nano-separation technology with SDS alkaline lysis method of bacterial cells, releases nucleic acid in the buffer system, and under the effect of centrifugal force The next cell debris and SDS complexes settle down. Add special coated magnetic beads, the magnetic beads have a strong affinity for plasmid DNA in the buffer system, and when the conditions change, the magnetic beads release the adsorbed nucleic acids, and the washing system can remove impurities such as proteins and small molecules in the solution. , can achieve the purpose of rapid separation and purification of nucleic acid, and does not use toxic reagents such as chloroform.

### Application:

Widely used in scientific research, hospital, biological industry, etc.

### Features:

- ① Simple and fast: Ultrapure plasmid DNA can be obtained in about 45 minutes.
- ② High purity: effectively remove impurities such as protein and inorganic salts, and the product A260/280 value is greater than 1.7.
- ③ Good quality: with a unique buffer, it can release DNA better and improve the yield, and it also has little damage to genomic DNA, which can protect the integrity of DNA.
- ④ Automation: match BNP32, BNP48, BNP96 nucleic acid extractors to achieve high-throughput automated operation.
- ⑤ Safe and non-toxic: the reagent does not contain toxic solvents such as phenol and chloroform.
- ⑥ Wide range of applications: enzyme digestion, PCR, library construction, Southern hybridization, etc.

### Parameters:

Model	CH-13-1	CH-13-2	CH-13-3
Extraction Method	Magnetic bead method		
Sample Type	Bacterial liquid		
Validity Period	Good stability, valid for 12 months		
Sample Volume	1~2ml		
Within-assay Precision	Coefficient of variation (CV,%)≤15%		
Specification	8T/box, 16T/box, 32T/box, 64T/box	48T/box, 96T/box	50T/box, 100T/box
Applicable Instruments	BNP32, BNP48	BNP96	Manual Extraction
Package Information	24 Boxes/Carton		
Package Size(W*D*H)	740*420*300mm		
Gross Weight	18.5kg		

## Gene Amplification Instrument TEC01



### Introduction:

The gene amplification instrument is an instrument that performs nucleic acid amplification by polymerase chain reaction. Mainly used in Medical institutions, clinical gene amplification testing laboratories that meet the requirements, scientific research institutes, universities, etc.

### Features:

- ①. Reliable performance of heating and cooling elements, high-performance temperature control system.
- ②. High-performance digital signal processor for precise temperature control.
- ③. Excellent temperature uniformity.
- ④. Rapid heating and cooling.
- ⑤. 7-inch color touch panel, easy to operate.
- ⑥. Support large-capacity program storage.

### Parameters:

Model	TEC01
Capacity	96
Reaction Volume	10~200ul
Tube Type	96*0.2ml PCR plate, 8*0.2ml PCR tube
Block Temperature Range	4°C~105°C
Heat Lid Temperature Range	30°C~110°C, When the set temperature is lower than 30°, the Heat Lid will be closed automatically
Display Resolution	±0.1°C
Temperature Accuracy	≤0.5°C
Temperature Uniformity	≤1°C
Block Material	Aluminum
Gradient Range	30~99°C
Temperature Differential Range	1~42°C
Program	A single program can be up to 30 steps, 99 cycles
Display	7" LCD
Power Supply	110V~220V, 50/60Hz
External Size(L*W*H)	398*280*257mm
Net Weight	11kg
Package Size(L*W*H)	495*380*380mm
Gross Weight	17kg

# Fluorescent Quantitative PCR Detection System



## Introduction:

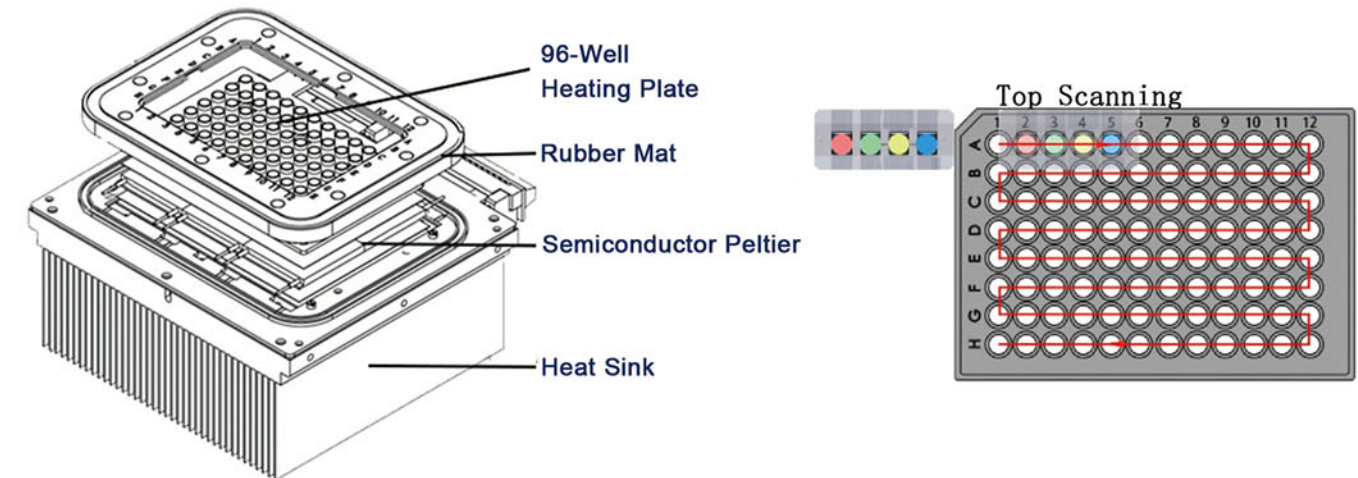
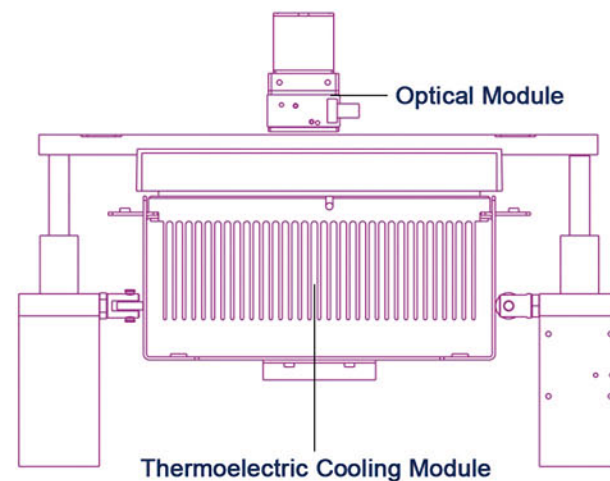
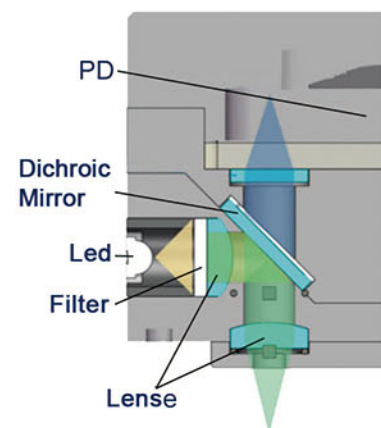
Real-time PCR is used for sensitive, specific detection and quantification of nucleic acid targets. We have developed powerful assay design algorithms, optimized qPCR reagent, intuitive data analysis software, and flexible instrumentation to help harness the power of qPCR across a rich and diverse set of applications. Explore our robust solutions for your qPCR-based research.

## Application:

It can be widely used for Infectious disease research, Food pathogen detection, Waterborne pathogen detection, Pharmaceutical analytics, Stem cell research, Pharmacogenomics research, Oncology and genetic disease research, Plant sciences and agricultural biotechnology.

## Working Principle:

The temperature step change is controlled by the semiconductor peltier to realize PCR amplification. Use high-sensitivity PD unit to detect fluorescence; Program control channel switching, non-contact excitation/detection on the top structure, coordinated with motor control x and Y axis movement to achieve 96-hole scanning. Finally, accurate analysis is carried out through powerful software.

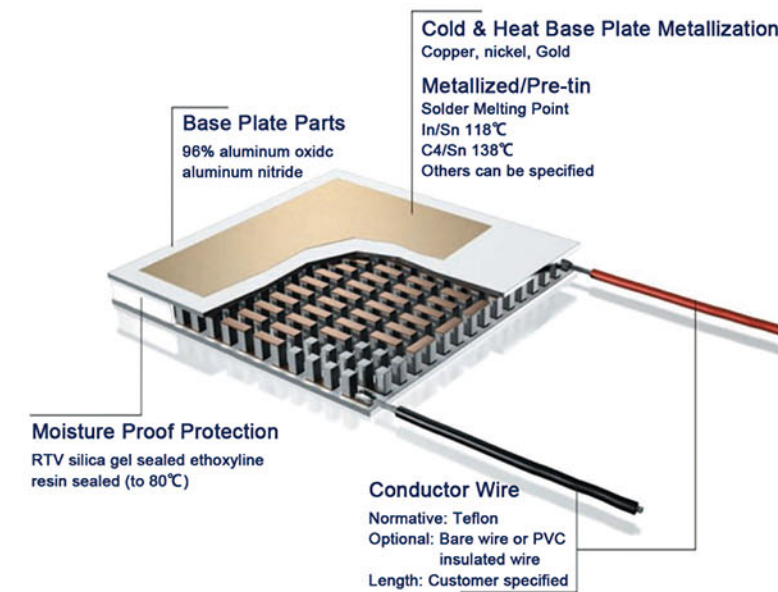


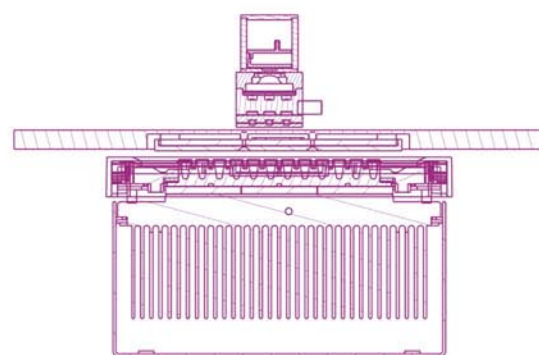
## Features:

- \* Excellent temperature control performance of the instrument, Module Max heating rate/heating rate 7.0°C/s.
- \* No edge effect, no optical path correction, top excitation/detection, non-contact measurement.
- \* Fluorescence detection adopts PD sensor with high sensitivity.
- \* Long-life LED light source, stable emission wavelength, maintenance-free.
- \* 4/6-channel fluorescence detection, no cross interference between channels.
- \* User-friendly and fully functional software, flexible program setting, comprehensive analysis and reporting functions, all the parameters can be stored.

## Real-time PCR Hardware:

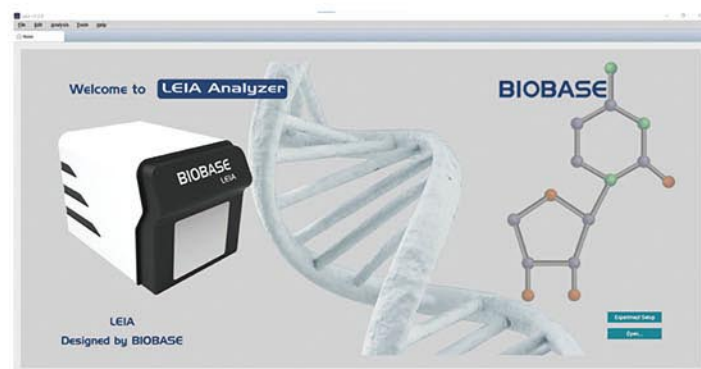
Thermoelectric cooling module (TEM) is a semiconductor device composed of many tiny and effective heat pumps. By applying a low-voltage DC power supply, heat will be transferred from one side of the TEM to the other side, resulting in a phenomenon that one side of the TEM becomes hot and the other side becomes cold. Since this phenomenon is completely reversible, when the polarity of the DC power supply is changed, it will be affected. Shift in the opposite direction. This product adopts a long-life series TEM, which provides longer life and more efficiency during thermal cycling.





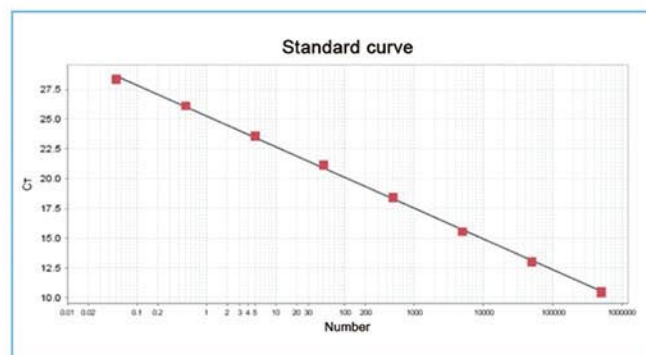
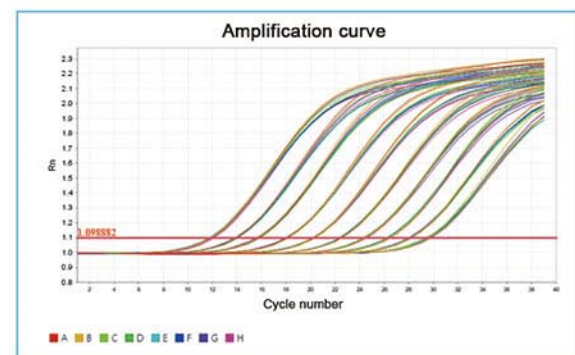
The integrated design of the scanning module and the heating cover module, relying on its own gravity to compress the heating plate and the reagent cover, and is supported by four compression springs to prevent the sample tube from being crushed; at the same time, the rubber pad around the heating cover is pressed to ensure that there is no external light source interference in the detection ; The bottom of the cam mechanism is used to support the spacing to ensure the smooth sliding of the heating module; the guide rail mechanism on both sides of the heating module prevents the module from shifting and ensures the accuracy of the mechanical scanning structure.

**Real-time PCR Software:**

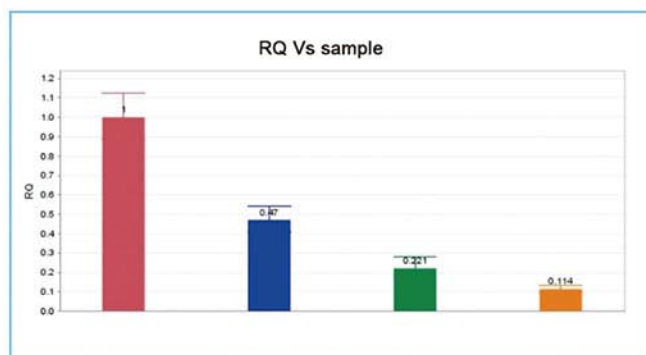
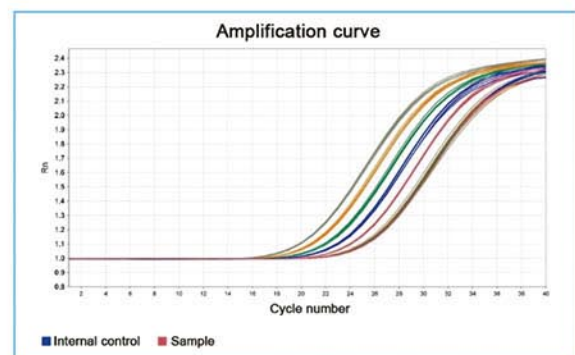


The software includes functions such as absolute quantification experiment, melting curve experiment, relative quantification (AACT) experiment, and genotyping experiment. Enter the attribute setting interface and select different function modules. Guided flow operation, convenient for users to quickly complete experimental settings. The software can open the recent experiment record template for easy viewing of recent experiments and the creation of new experiments.

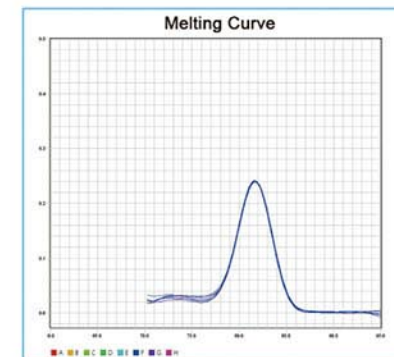
**Absolute Quantification Experiment:**



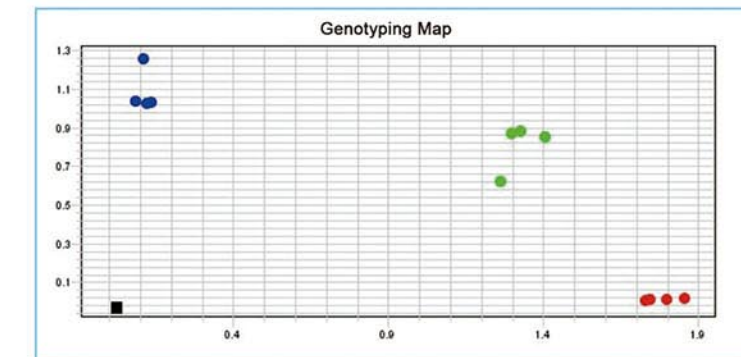
**Relative Quantification (AACT) Experiment:**



**Melting Curve Experiment:**



**Genotyping Experiment:**



**Parameters:**

Model	LEIA-X4			
Sample Capacity	96*0.1ml PCR plate, 12*8-strip tubes, 96*0.1ml single tube (Transparent Cover)			
Reaction System	10~50µl			
Dynamics Range	1-10 <sup>10</sup> copies			
Channel	4			
Emission Light	LED			
Detector	MPPC			
Detection Path	F1	F2	F3	F4
Suitable Probe/Dye	FAM/SYBR GREEN	VIC/JOE/ HEX/TET	ROX/TEXAS-RED	Cy5
Excitation Wavelength	455~680nm			
Detection Wavelength	510~730nm			
Fluorescence Detection Repeatability	CV≤2%			
Fluorescence Detection Accuracy	CV≤3%			
Fluorescence Detection Linearity	r≥0.995			
Module Temp. Range	4-99°C(resolution:0.1°C)			
Ramp Rate	5.0°C/s(max)			
Temp. Accuracy	±0.3°C			
Temp. Uniformity	≤ ±0.3°C			
Temp. Control Mode	Block mode			
Gradient Temp. Range	1-36°C			
Hot-Lid Temp. Range	100°C, Automatic Hot-lid			
Scanning Mode	Full plate scanning			
Programming	Max 100 Segments for Each Program, Max 99 Cycles			
Operation Mode	Continuous			
Scanning Time	8.5s			
Special Function	Absolute quantitative automatic analysis, relative quantification, SNP Analysis, melting curve analysis, etc.			
Operation System	Microsoft: Windows10			
Power Supply	220V,50/60HZ; 110V,60HZ			
Dimension(L*W*H) Mm	375*490 *365			
Port Method	USB Port			
Packing Size(L*W*H) Mm	645*565 *605			
Gross Weight	45			

## Fluorescence Quantitative PCR Detection System



### Features:

- \* Whole block scanning and formulated line scanning mode, 96-well double-colour scanning takes only 5.5s
- \* 6 channels fluorescence detection, no cross talk between different channels.
- \* Unique bottom detection, compatible to reaction volume down to 5µl
- \* New automatic hot lid, automatic open and close which is prevent reagent evaporation
- \* LED excitation light source with super long service life
- \* New TE module with special technique to ensure long service life
- \* Available for a variety of scientific research and clinical applications.

### Technical Parameters:

Product Name	Fluorescence Quantitative PCR Detection System
Model	FQD-96A
Sample Capacity	96*0.2ml PCR plate, 12*8-strip tubes, 96*0.2ml single tube (Transparent Bottom)
Reaction system	5~100µl
Dynamics Range	1~10 <sup>10</sup> Copies
Medical instrument registration certificate	G.X.Z. 20153400273
Channel	4
Emission Wavelength	500~800nm

Detection path	F1	F2	F3	F4	F5	F6
Suitable Fluorescent Dye	FAM, SYBR GREEN1	HEX/VIC/TET/ JOE/CY3/NED/ TAMRA	ROX, TEXAS-RED	Cy5	Cy5.5	Reserved Path
Excitation Wavelength	300~800nm					
Detection Wavelength	500~800nm					
Module Temp. Range	4~105°C (resolution: 0.1°C) with SOAK Low Temp. storage Function					
Ramp Rate	4.0°C/s (max)					
Temp. Control Accuracy	±0.1°C					
Temp. Uniformity	≤ ±0.3°C					
Temp. Control Mode	Block mode and Tube Mode (Automatic control based on liquid level)					
Optional Accessories	Windows Tablet PC					
Gradient Temp. Range	1~36°C					
Hot-lid Temp. Range	30~110°C (Adjustable, Default by 105°C and Automatic Hot-lid)					
Fluorescence intense Detection Repeatability	5%					
Scanning Mode	Full plate scanning and designated line scanning					
Programming	Max 20 Segments for Each Program, Max 99 Cycles					
Operation Mode	Continuous					
Scanning Time	5.5s					
Special Function	Absolute quantitative automatic analysis, relative quantification, SNP Analysis, melting curve analysis, 6 independent temperature zones, HRM multi-channel crosstalk calibration, background correction, auto gain, customized parameters, etc					
Operation System	Microsoft: Windows7/Windows8.1/ Windows10 Software: excel2000/2002/2003/2007/2012					
Min-computer Configuration	RAM: 512M, hardware space: 10GB CPU: Pentium 4 virtual memory ≥1000MB					
Power Supply	100-240V 50/60Hz 600W					
Dimension(L*W*H)	410*386*352mm					
Port Method	Support USB and RS232 data port and Bluetooth port					
Certification	Ferrotec Peltier/CE/EMC/RoHS2.0/PICC Product quality liability insurance/IVD/MET					
Packing Size	720*680*640mm					
Gross Weight	55kg					