Technical Specification

Model	M2-96SG
Block Type	96-well aluminum alloy sample block
Display	10.1-inch HD touch screen, 1280×800 pixels
Compatible Consumables	0.1/0.2 mL single tube, 8/12-strip tubes, skirtless & semi-skirted PCR plates
Block Temperature Range	0-105°C
Heated Lid Temperature Range	30-115°C
Max. Temperature Ramp Rate	6°C/s
Temperature Control Mode	Block / Tube
Temperature Display Resolution	0.1°C
Temperature Uniformity	≤±0.2°C
Temperature Accuracy	≤±0.1°C
Gradient Type	12-column linear / conventional temperature gradient
Gradient Temperature Range	30-105°C
Gradient Delta Range	0.1-42°C
Program Storage	200,000 protocols (unlimited expansion via USB drive)
Max. Steps per Program	40 steps (supports nested PCR)
Max. Cycles per Program	200 cycles (up to 100,000 under nested cycling)
Time Increment / Decrement	±(1 s–600 s) (for Long PCR)
Temperature Increment / Decrement	±(0.1–10.0 °C) (for Touchdown PCR)
Real-Time Temperature Curve	Real-time recording of heated lid and block temperature
GLP Compliance	Logs all running steps; GLP report exportable
User Access Control	Three-level permissions: Guest, User, Administrator
Tm Calculator	Calculate primer Tm values
Screen Lock	Password / password-free lock
Power Failure Protection	Auto-resume unfinished run after power recovery
Email Alert	Auto email notification upon run completion
APP Monitoring	Simultaneous monitoring of up to 250 instruments
Communication Interface	USB2.0，WIFI
Power	100–240VAC，50/60Hz，600 W
Dimensions (W*D*H)	270mm×385mm×255mm
Net Weight	10kg

Ordering Information

Model	Description	Module
M2-96SG	PCR Thermal Cycler (Single Block)	96-well aluminum alloy sample block

RWD

Gradient PCR Thermal Cycler

M2-96SG

The RWD M2-96SG PCR Thermal Cycler is equipped with six long-life dedicated Peltier thermal cycling modules and an integrated corrosion-resistant, high-thermal-conductivity aluminum alloy sample block, delivering precise temperature control with outstanding uniformity and accuracy. It supports flexibly adjustable temperature ramp rates, as well as dual gradient modes including 12-column linear gradient and conventional temperature gradient, enabling rapid optimization of experimental conditions and efficient, specific amplification of target DNA fragments.

This instrument is widely used in molecular biology, microbiology, genetics, cell biology, food science, agriculture and other fields for molecular cloning, gene expression analysis, genotyping, sequencing, pathogenic microorganism analysis and other experimental studies, providing strong support for efficient laboratory work.

Features

Excellent Temperature Control, High Precision and High Efficiency

- Equipped with 6 long-life dedicated TEC modules, with a maximum temperature ramp rate of 6 °C/s.
- Integrated high-thermal-conductivity aluminum alloy sample block ensures uniform heat transfer and consistent temperature accuracy.
- Supports 12-column linear / conventional temperature gradient to quickly determine the optimal annealing temperature.
- Dual temperature control modes (Block / Tube) eliminate sample temperature deviation and ensure experimental precision.

Wide Compatibility for Multi-scenario Applications

- Dual-function design integrating PCR amplification and constant-temperature incubation, meeting diverse experimental requirements including PCR, enzyme digestion and ligation.
- Compatible with 0.1/0.2 mL PCR tubes, 8-strip tubes and PCR plates, supporting reaction volumes from 5 to 100 µL.
- Supports a variety of applications including conventional PCR, touchdown PCR, long PCR and RT-PCR.

Easy Operation, Intelligent and Efficient

- 10.1-inch HD touch screen with Android system for simple, intuitive operation.
- Stores more than 200,000 protocols; frequently used programs can be recalled with one click to improve efficiency.
- Remote monitoring via mobile APP and email notification upon experiment completion allow unattended operation.

Safe, Reliable and Worry-free

- Multi-level account management with clear permissions to protect experimental data security.
- Screen lock function prevents accidental operation and parameter modification to ensure smooth running.
- Adaptive heated lid prevents tube deformation, sample evaporation and condensation.
- Power failure protection: automatically resumes unfinished cycles after power recovery to ensure safe amplification.
- Compliant with GLP guidelines with fully traceable experimental data, fully meeting laboratory compliance requirements.

M2-96SG

Handle
One-step locking

Hot Lid
Auto-adjust Height & Pressure

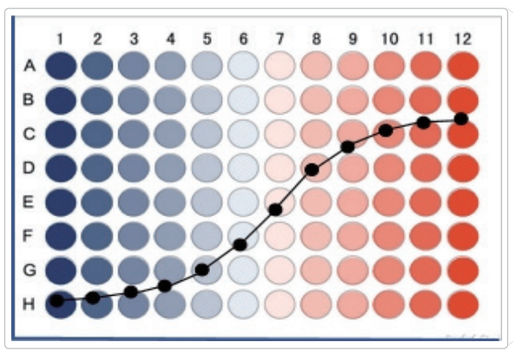
Al Alloy Block
Corrosion & Oxidation Resistant

Touch screen
10.1-inch+Android OS

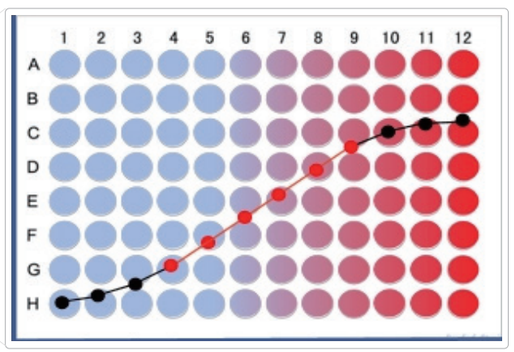
Ventilation port
Front-in Rear-out

USB 2.0
Import/Export & Update

Dual temperature gradient (conventional + linear) enables accurate identification of the optimal annealing temperature

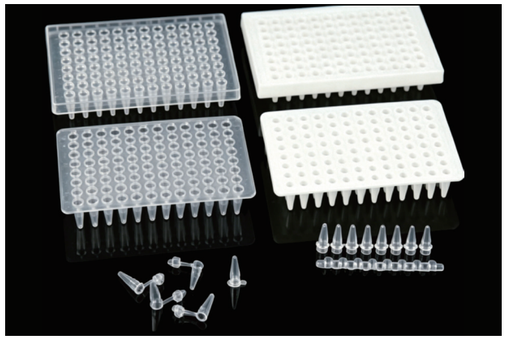


12-column conventional temperature gradient

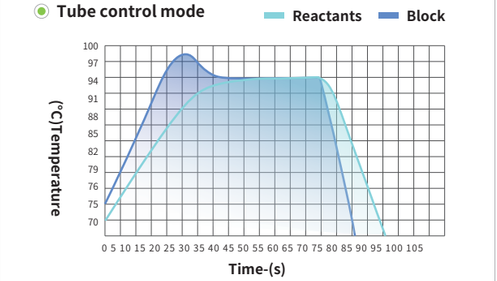


12-column linear temperature gradient

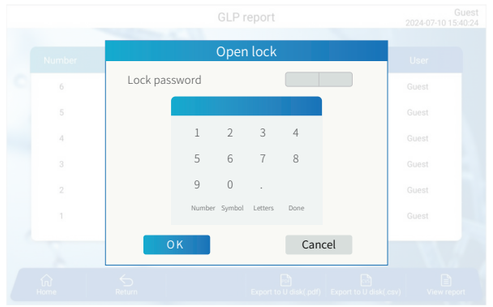
Mobile APP monitoring enables unattended operation



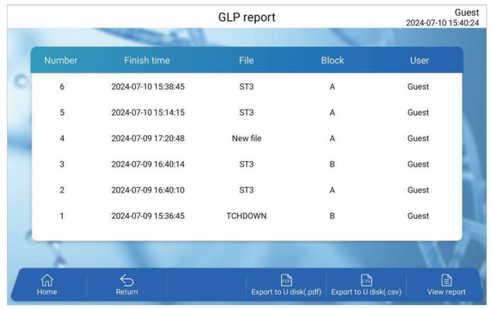
Compatible with various consumables: single tube, strip tubes and PCR plates



Tube temperature control mode avoids sample temperature deviation



Screen lock function prevents accidental parameter modification



GLP compliant; records all running steps of the program

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