

TurboCycler 2

Enhancing PCR Efficiency and Accuracy



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Intuitive, Rapid and Precise

TurboCycler 2 is designed specifically to enhance PCR efficiency and accuracy. It is equipped with a 7" capacitive touchscreen and a friendly graphics user interface, which makes operation highly intuitive.

With fast ramping rate and gradient PCR optimization, TurboCycler 2 greatly improves PCR processing efficiency and accuracy. The optional Wi-Fi module enables users to monitor the working status anytime via mobile devices.

Efficient Remote Monitoring

The optional Wi-Fi module allows monitoring PCR run status anytime via mobile devices using the free TurboApp.



Intuitive Operation Experience

Easy to Control

The sensitive 7" capacitive touchscreen enables easy operation even with laboratory gloves on.



Convenient Tools

The built-in tools allow easy Tm calculation, copy number conversion and master mix preparation.



Friendly User Interface

The simple conversational graphic user interface, which has intuitive spinning wheels, makes adjustment of experiment temperature, time and cycle easy.



Highly Flexible Design

The compact A4 footprint allows side-by-side placement of units to save bench-top space



Easy-to-operate heated lid design, compatible with most of the PCR vessels on the market



Power failure recovery keeps the experiment safe



USB port support for protocol transfer



Outstanding Performance

- > Fast ramping rate up to 5.5 °C/sec
- > Excellent temperature accuracy and uniformity (+/- 0.3 °C)
- > 12-section gradient temperature range from 1 to 24.9 °C for PCR optimization
- > The quick boot-up takes only 45 seconds

The high ramping rate and precise temperature control of TurboCycler 2 gives excellent PCR efficiency.

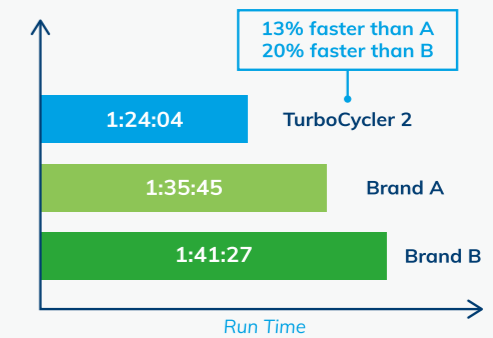


Figure 1: Comparison of run time between TurboCycler 2 and competitors.

The gradient function enables users to screen optimal experimental conditions in a single PCR run.

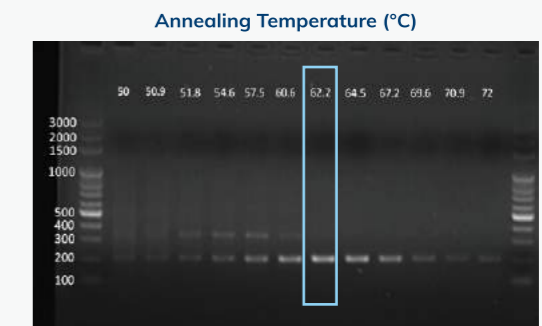


Figure 2: The specific 200bp PCR product has the best PCR yield at an annealing temperature of 62.2 °C.

Specifications

Sample Block

96 Well, Gradient Block	Compatible with regular profile or low profile 0.2 ml PCR tube, strip, non-skirted, semi-skirted and full-skirted 96-well plate
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Block Temperature

Block Temperature Range	4.0 - 99.9 °C
Max. Heating Rate	5.5 °C/sec
Max. Cooling Rate	3.3 °C/sec
Temperature Accuracy	+/- 0.3 °C
Temperature Uniformity Across Block	+/- 0.3 °C
Adjustable Ramping and Cooling Rate	Yes, low / high

Gradient Temperature

Gradient Direction	Horizontal across the block
Gradient Temperature Range	30 - 99 °C
Gradient Temperature Difference	Max. span 24.9 °C

Software

Portability of Protocols	Save and transfer to computer or TurboCycler 2 via USB flash drive
Stored Program No.	> 500 sets
Registered User Folder No.	100 sets
User Folder Password Protection	Yes
Run Status Report	Yes, HTML output and transfer via USB flash drive
Real-time Temp. Profile Export	Yes, CSV output and transfer via USB flash drive
Tools	Tm calculator, Copy number convertor, Master mix preparation wizard

General

Display	7" color LCD with capacitive touch panel
Data Port	1 USB Type-A front port for USB flash drive
Heated Lid	Yes, fixed 105 °C, 120 °C and off
Auto Restart after Power Outage	Yes
Remote Monitoring via Wi-Fi	Optional
Footprint Dimensions (H x W x D)	225 mm x 245 mm x 415 mm
Weight	9.5 kg
Power Supply	VAC 100-240, 50/60 Hz, 750 W
Certification	CE IVD, RoHS

Specifications are subject to change without prior notice.

Ordering Information

TCST-9612	Gradient TurboCycler 2 with 96-Well Sample Block (110 V)
TCST-9622	Gradient TurboCycler 2 with 96-Well Sample Block (220 V)
TCST-a001	Wi-Fi Upgrade Module
TCST-a002	5.2 mm Compression Mat x 10 pcs
TCST-a003	1.0 mm Compression Mat x 10 pcs



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