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ETC811

Thermal Cycler

PCR, Polymerase Chain Reaction, is a method for enzymatic synthesis of specific DNA fragments in vitro. It consists of high temperature denaturation, low temperature annealing (renaturation) and suitable temperature extension. The cycle is carried out, and the target DNA can be rapidly amplified. It has the characteristics of high specificity, high sensitivity, simple operation and time saving. Thermal cycler is the device for rapid amplification of genes. Based on Peltier technology, it realizes the rapid, accurate and automatic circulation of reagent temperature, thus realizing the full automation of the PCR process. It can be used not only in basic research such as gene isolation, cloning and nucleic acid sequencing, but also in clinical diagnosis of diseases.

Relying on Details

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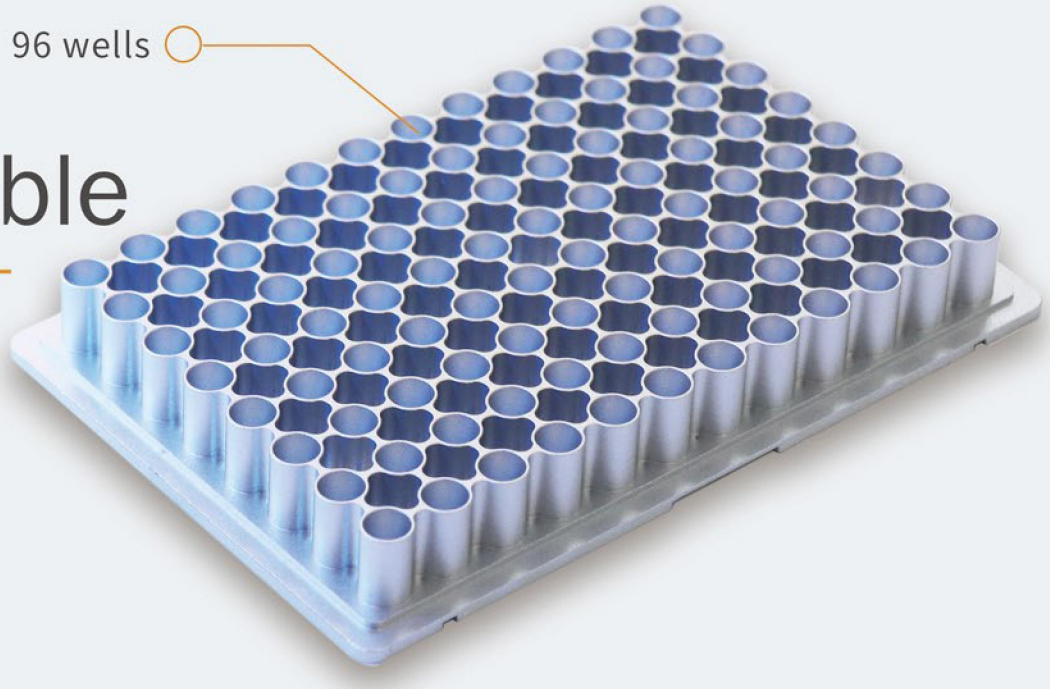
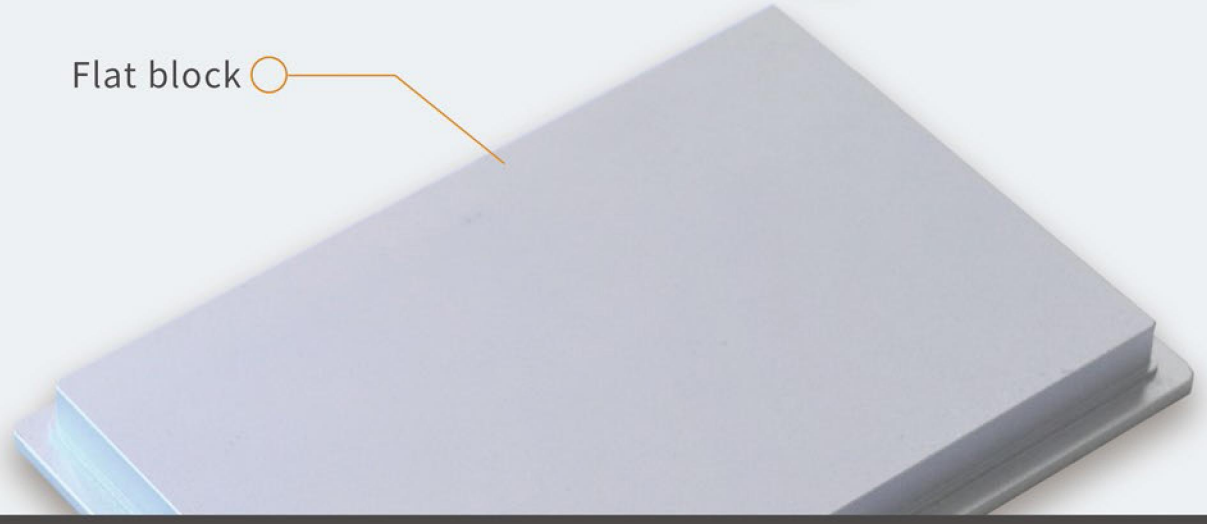
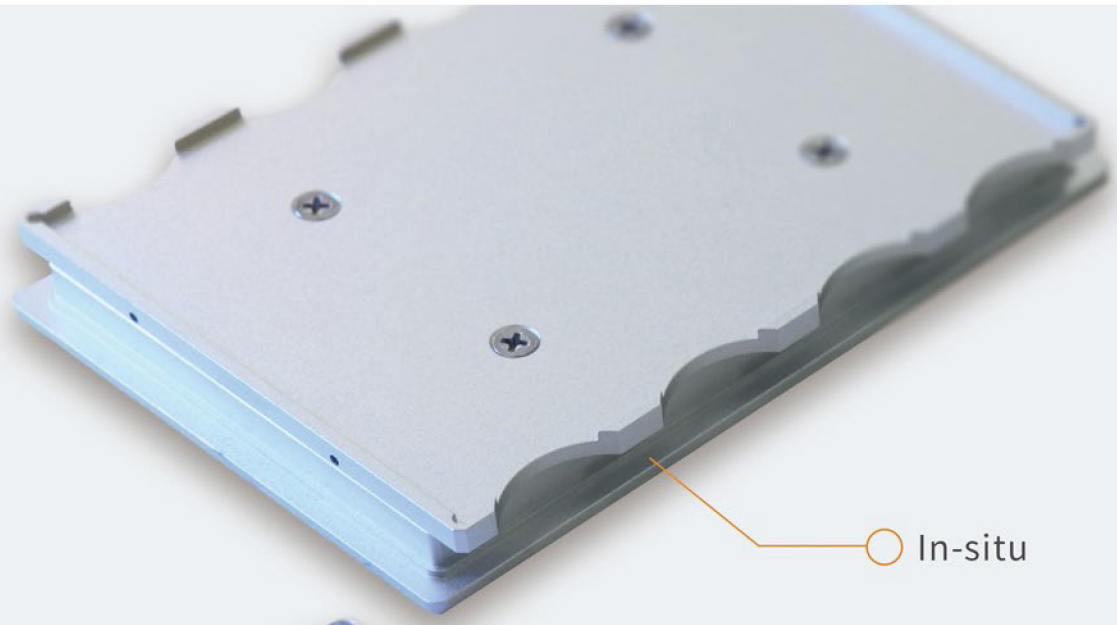
4 Blocks are Available



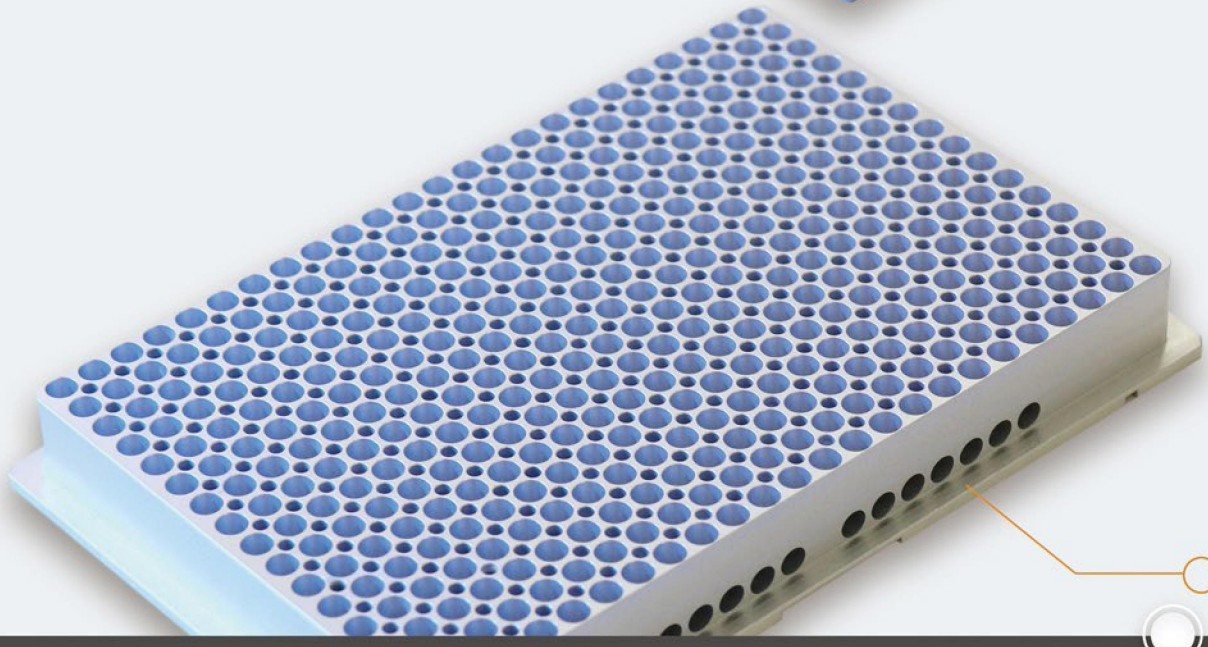


- **Inhibit Nonspecific Amplification**
- **Adjustable Ramp Rate**
- **Prevent Evaporation**
- **Gradient Temperature Synchronously**

- Quality System: ISO9001/13485
- CE Certificate: CE



In-situ

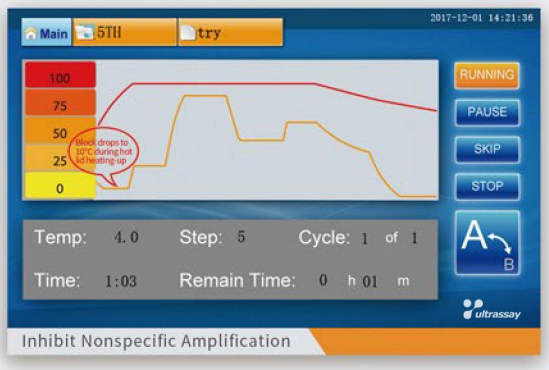


384 wells

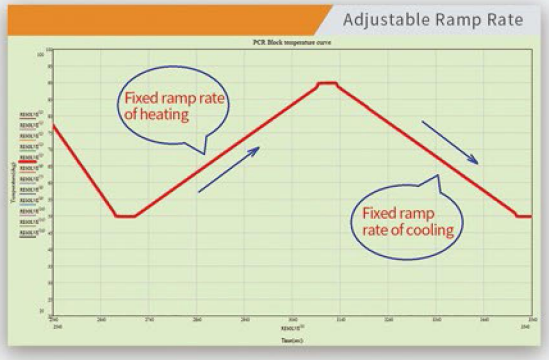
- Easy to Press and Lock
- Built in Engineering Mode
- Quick Service

Inhibit Nonspecific Amplification

The experienced soft design inhibits the nonspecific amplification of reagents. In practice, if the PCR reagent is put into the block immediately before the hot lid temperature reaches the set value, the reagent in the block will also heating-up with hot lid. Here, the reagent in block will begin to react slowly. But this is not the desired, that is, nonspecific amplification. What to do? during the hot lid warming up, the block is cooled to 10°C until the hot lid temperature get set value before running the cycle program.



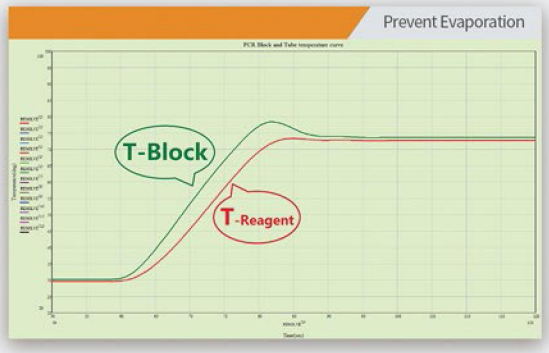
Inhibit Nonspecific Amplification



Adjustable Ramp Rate

Actually, not all PCR experiments require the fastest ramp rate. Some PCR reactions require fixed heating rate or cooling rate to ensure the result of PCR reaction. After long-term technical accumulation and algorithm optimization, ETC811 provides a nearly perfect linear temperature control curve.

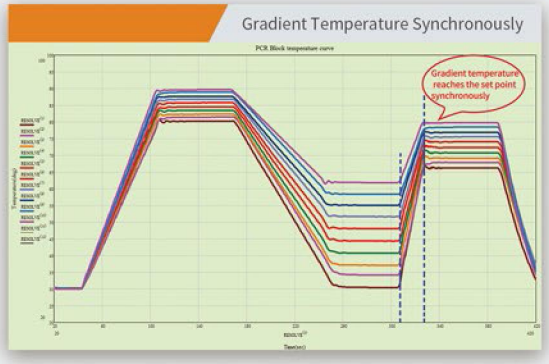
Prevent Evaporation



In order to speed up the temperature balance between block and reagent and shorten the reaction time of PCR, the control mode of overheating block temperature is often used in the temperature control algorithm of PCR. However, for small-volume reaction of PCR, excessive overheating will make reagent temperature close to boiling point, which will cause reagent evaporation or even drying, leading to the abandonment of previous work. With the accumulation of temperature control technology for many years, the reagent of ETC811 PCR will not evaporate even in a small volume of 5-15ul, so as to ensure the success of the experiment.

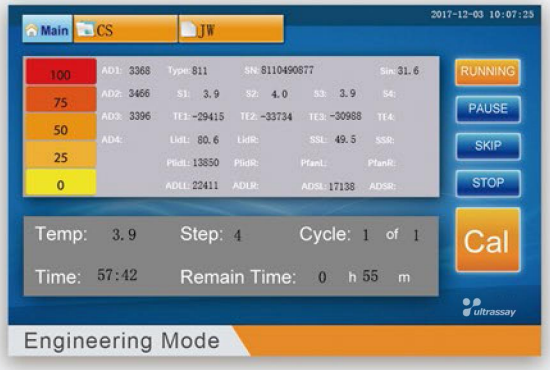
Gradient Temperature Synchronously

When gradient function is used to optimize the PCR reaction conditions, there are two variables, time and temperature. When the temperature gradient is set, we tend to focus only on the effect of temperature on the PCR reaction. In fact, the time of arrival of temperature is different for each column well. This raises the question: is the result of optimization a function of temperature or time? ETC811 uses a special temperature control algorithm to solve this problem well. By eliminating the time variable, the gradient PCR optimization experiment is only related to temperature, which greatly improves the certainty of the test results.



Easy to Press and Lock

- Press and lock simultaneously
- Damped cover shaft can be stopped whenever you want
- Adaptable to different tubes (except full skirt)



Built in Engineering Mode

In engineering mode, a special interface (need password) is designed to show all sensor states for machine debugging and maintenance to accurately judge faults and shorten maintenance time.

Peltier	Heatsink T	Room T	Hot-lid	Serial	Block T
TE1-Err11 TE2-Err12 TE3-Err13	SSL-Err05	Sin-Err10 Sin-Err15 Sin-Err16	LidL-Err07	S/N	S1-Err01 S2-Err02 S3-Err03

Quick Service

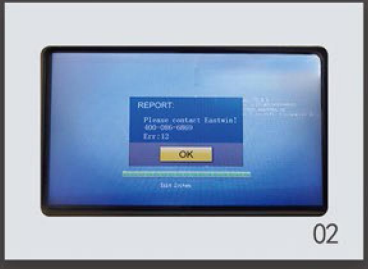
Errors Reporting Takes Only 20 Seconds

The service QR code is directly linked to the after-sales service platform under the handlebars and help pages of each machine. When needed, take a picture of Err popup windows use mobile phone, scan the QR code, and send it to our service WeChat. It takes only 20 seconds at the fastest. Our Service Engineer will answer your question.

01 ETC811

02 Take photo of Err popup windows use mobile phones

03 Scan the service QR code under the handle



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Focus on Life Science Instruments

ISO9001/13485 Certifications by TÜV SÜD

Basic Parameters of ETC811

1	Model	ETC811	ETC811-384	ETC811-***
2	Block	0.2ml*96 Aluminum	384 Aluminum	In-situ or flat
3	Applicable Consumables	96 Microplate(non-skirt/semi-skirt, except full skirt) Single/8-strip/12-strip tubes(tall/short tubes, flat/dome tubes)	384 Microplate	Customizable
4	Input Power	100-240V~50/60Hz，600VA		
5	Dimension L*W*H	427*288*227 mm		
6	Net Weight	9.7kg		

Block Performance Parameter of ETC811

7	Temperature control accuracy	≦±0.1°C
8	Block temperature precision	≦±0.1°C
9	Block temperature uniformity	≦±0.3°C @55°C
10	Max. ramp rate	≥5°C/s
11	Avg. ramp rate	≥2°C/s
12	Temperature Control Technology	3 Peltier independently control. Distributed auxiliary heating on block edge.

Features of ETC811

13	Block control mode	Block/Tube
14	Block temperature range	4-99°C
15	Hot lid temperature range	30-110°C，ON/OFF
16	Real-time curve	Display block and hot lid temperature curve.
17	Gradient range/span	30-99°C/0.1-42°C
18	Temperature touch down	±0.1~±9.9°C/cycle
19	Time touch down	±1s~±9m59s/cycle
20	Gradient temperature reaches the target synchronously.	Yes, with smart ramp rate control technology.
21	Ramp rate control	Yes, 0.1-4°C/s adjustable
22	Inhibit non-specific amplification	Yes
23	Display screen	7" WVGA 64000 color touch screen with led backlight.
24	Max pcr step	30
25	Memory	Max 1296 files
26	Password protection	Yes
27	Memory function of power-down	Yes
28	Self-adaptable cover	Cover can automatically adapt to various heights of tube, such as tall tubes, short tubes, flat tubes and dome tubes.
29	Self-test	Yes. Self-test when power on every time.
30	Auto report	Yes. Auto report every action in process after running.
31	Fault self-diagnosis and report	Yes. Fault self-diagnosis and display error code in pop-up window.
32	Auto soaking after running	Yes. Reagents are auto cooled and keep to 8°C after running.
33	Estimation of remaining time	Yes
34	Edit other programs in operation	Yes
35	WeChat service support	Yes. Provide technical support and service via WeChat.
36	Ce certificate	Yes

Due to the different weights of 384 block, in-situ block, and flat block, the temperature parameters are slightly different.

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