



UltraAmp-48

Real-Time PCR System



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Product Introduction



Based on the principle of polymerase chain reaction (PCR) and real-time fluorescence monitoring technology, it is used together with supporting detection reagents to conduct qualitative, quantitative detection or scientific analysis in non-clinical DNA/RNA samples.

Application Area



- Detection of non-clinical, animal and plant pathogens;
- Basic scientific research and genetic screening;
- Food hygiene quarantine and import and export quarantine.

Advantages



Ultra-fast

With rapid temperature rise and fall functions, high-precision temperature control and an efficient thermal cycle system, it can complete PCR amplification in as fast as 30 minutes, greatly speeding up the detection process.



High accuracy

The well-to-well temp. uniformity reaches $\pm 0.1^{\circ}\text{C}$, allowing for rapid and accurate detection of gene expression differences as low as 1.5-fold. The excellent optical system combines sensitivity and stability, providing you with highly sensitive, accurate and reliable data.



High-throughput

Supporting up to 8 colors of fluorescence, multiple targets or genes can be detected simultaneously, Greatly improving detection throughput and efficiency.



Multi-blocks

Up to 6 blocks are provided. Each sub-block is integrated with an independent temperature control system and heating cover, which can be controlled and operated independently, making the equipment more flexible and easy to use, and can also adapt to different experimental needs.



Portable size

Less than the size of an A3 paper and weighing less than 10 kg, UltraAmp-48 can be run directly after being moved without any calibration, making it easy to place, carry and use.



High compatibility

The open system is compatible with a variety of reagents and experimental protocols on the market, making it convenient for users to conduct experiments according to different needs.



Easy operation

UltraAmp-48 with a friendly operating interface easy to use. Unique SOP design and automatic result interpretation functions make it easy to obtain conclusions. Covers a variety of analysis modes: qualitative/quantitative, standard melting curve, end-point allele identification, high-resolution melting curve (HRM), isothermal amplification, etc.



Multiple gradients

6 independent and precise temp. control areas, with no limit on temperature differences between adjacent areas. 6 experiments with different temp. gradients and time gradients can be set up simultaneously to find the best reaction conditions by comparing the amplification effects at different temperatures or holding times.

Technical Specification

Performance				
Sample Capacity	48 wells (6x8x0.2ml)			
Parallel Experiment	6 independent blocks, which can run 6 different experiments simultaneously			
Consumables	0.2ml PCR tube, 0.2ml 4-strips			
Light Source	High brightness and long life LED (Maintainless)			
Detector	High sensitivity photodiode module (PDM)			
Dynamic Range	$10^0 \sim 10^{10}$			
Sensitivity	1 copy			
CV	<1.00%			
Rn	$ r \geq 0.9990$			
DNA Concentration Dis.	1.5 times (distinguish the difference of 1000 and 1500 copies)			
Reaction Volume	15ul - 100ul			
Dyes and probes	CH1: FAM, SYBR	CH2: VIC, HEX, JOE, TET	CH3: ROX, TEXRAD	CH4: CY5
	CH5: QUASAR705	CH6: ATTO425	CH7: Optional	CH8: Optional

Heating Blocks	
Temp. Control Model	Fast, Standard
Temp. Accuracy	$\pm 0.1^{\circ}\text{C}$
Temp. Uniformity	$\pm 0.1^{\circ}\text{C}$
Temp. Range	$4^{\circ}\text{C} \sim 99^{\circ}\text{C}$
Avg. Heating Rate	10°C/s
Avg. Cooling Rate	8°C/s
Hot Lid	$30^{\circ}\text{C} \sim 120^{\circ}\text{C}$ (105°C default, temp. adjustable) automatic hot lid

Working Conditions	
PC Operating System	Windows7/8/10/11 etc.
Software	SOP, data output xlsx, csv, txt, custom report, automatic report etc.
Power	600VA
Power Supply	220VAC 50HZ
Dimension (L*W*H)	343*295*157mm
Weight	9kg
Com. Interface	USB