QUBO
RT-PCR



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Qubo RT-PCR

Rapid fluorescence RT-PCR analyzer, an evolution of the traditional fluorescent quantitative PCR instrument, which retains the advantage of high detection sensitivity, but also overcomes the disadvantage of classical RT-PCR reactions which take much longer.

In this way, one run reaction time can be shortened from 1.5 hours to 20/30 min, which greatly saves time.

Characteristics

- With its Windows Touch-Screen operating system you can modify and run programs without the need to connect to an external computer.
- QUBO RT-PCR can be connected directly to the external printer to print the report.
- Qubo RT-PCR is available with 4-color fluorescence channels, the temperature-dependent fluorescence optical system can acquire all channels simultaneously.
- Super instrument performance, 8-12°C/s temperature change speed, 20-30min to complete 40 cycles.
- DNA/RNA detection available, integrate traditional PCR/RT-PCR functions, and supports one-step RT-PCR Method.
- Mobile, portable, and innovative compact design, especially suitable for on-site test and POCT.
- 10 ul reaction system saves reagents and samples.

Application fields

1. Daily rapid detection and emergency detection for CDC, Customs Inspection and Quarantine.
2. Clinical medical testing. POCT emergency detection.
3. PCR Technology Development and Application Tools for Research Institutes.
4. Fast PCR experiments to improve the efficiency and level of scientific research.
5. Outdoor Instant Detection Scene Application, such as immediate and rapid on-site inspection by armed forces and legal operation department.
6. Food Safety Monitoring, such as African swine fever, blue ear disease, foot-and-mouth disease, Newcastle disease virus, food-borne microorganisms, aquaculture diseases, meat adulteration detection.

Sample types

Pharynx swab, nasal swab, oral swab, culture, serum, plasma, sputum, animal tissue, plant tissue.




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Advantages

1 4-color fluorescence channels FAM /VIC /ROX /Cy5

Channel	*Excitation wavelength (nm)*	*Detection wavelebght (nm)*	*Fluorescent dye*
Channel 1	470+10	510+5	FAM,SYBR® Green I,Fluorescein, EvaGreen,Alexa Fluor 488
Channel 2	530+5	557+5	JOE,VIC,HEX,TET,MAX,CAL Fluor Gold 540,Yakima Yellow
Channel 3	585+5	610+5	ROX, CAL Fluor Red 610, Cy 3.5, Texas Red, Alexa Fluor 568
Channel 4	625+5	660+10	Cy5,Quasar 670,LightCycler Red640,Alexa Fluor 633

2 Multiplex Test
Adopting 8-hole chip, 8 samples and multi-target gene can be detected simultaneously.

3 Simple and rapid
The ultra-fast temperature rise and fall rate of 8-12°C/s can shorten the PCR experiment from 1.5 hours to only 20-30 minutes.

4 Micro-reaction system
Only 10 μL reaction system is needed, reducing reagent cost per test.

5 High sensitivity
Adopting microfluidic technology, each reaction pore is independent and has no cross interference. As a result, the detection system has high sensitivity.

6 Portable and durable
QUBO RT-PCR weighs 8 Kg, light and compact it can be easily transported to each site.



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Size	340x275x265 mm	Transportation and storage temperature	20°C - 55°C
Weight	8 Kg	Sample capacity	8 for every single biochip
Power Supply	220 V	Applicable consumables	Dedicated consumables
Communication interface	USB	Temperature control range	4°C - 99°C
Operating environment temperature	18°C - 35°C	Temperature control accuracy	± 0.1°C
Operating environment relative humidity	30% - 80%	Average heating and cooling rate	8°C - 12°C/s