TECHNICAL DATA SHEET

ALab™ Accurate 16-T Real-Time Fluorescence Quantitative PCR System

Real-Time Fluorescence Quantitative PCR System · 16 wells · 2 or 4 channels · 6.0 °C/Sec



ALab™ Accurate 16-T Real-Time Fluorescence Quantitative PCR System

The ALab™ Accurate 16-T. Image shown for reference.

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SECTION I

Product Overview

The ALab™ Accurate 16-T offers a fast, sensitive, real-time detection of fluorescence changes during gene amplification processes in low-throughput laboratory or field operations, for the precise quantification of nucleic acids in diverse biological samples.

It is a standalone, compact unit compatible with vehicular power supply, with touchscreen control, 16 wells for 0.2 mL PCR tubes or PCR 8-strip tubes, Peltier heating and cooling (maximum rate 6.0°C/Sec), a two- or four-channel fluorescence detection system and a 10 GB data memory.

SECTION II

Core Advantages

- **Wells** — 16, 0.2 mL tubes / 8-strips
- **Rate** — 6.0 °C/Sec, Peltier
- **Data** — 10 GB, Excel / PDF via USB
- **Channels** — 2 or 4
- **Control** — touchscreen, icon-based
- **Power** — 100-240V or optional 12V

SECTION III

Specifications

Technical data — Accurate 16-T

Specifications	
Brand	ALab™ by ACS Material
Model	Accurate 16-T
SKU #	ALMQPC00
Product Type	Real-time fluorescence quantitative PCR system
Touchscreen	Yes
Thermal cycling technology	Peltier heating and cooling
Detection device	High-precision MPPC
Dimensions [W×D×H]	225×270×132mm
Power supply	100-240V or optional 12V, 10A mobile power source
Weight	4kg

Specifications by model — Accurate 16-T 2-channel · 4-channel

Specifications by model		
Parameter	**2-channel**	**4-channel**
Sample capacity	16 wells, compatible with 0.2 mL PCR single tubes or PCR 8-strip tubes	16 wells, compatible with 0.2 mL PCR single tubes or PCR 8-strip tubes
Touchscreen	Yes	Yes
Thermal cycling technology	Peltier heating and cooling	Peltier heating and cooling
Maximum heating/cooling rate	6.0°C/Sec	6.0°C/Sec
Module heating temperature range [°C]	10–100	10–100
Lid heating temperature range [°C]	30–105	30–105
Temperature accuracy [°C]	±0.2	±0.2
Temperature uniformity	±0.2°C@60°C, ±0.3°C@95°C	±0.2°C@60°C, ±0.3°C@95°C
Excitation light source	Single-color high-efficiency LED	Single-color high-efficiency LED
Detection device	High-precision MPPC	High-precision MPPC
Detection mode	Linear fast well-by-well scanning	Linear fast well-by-well scanning
Fluorescence channels	Dual channels: FAM/SYBR, VIC	Four channels: FAM/SYBR, VIC, ROX, Cy5
Sensitivity	Single-copy gene	Single-copy gene
Dynamic range	10 orders of magnitude	10 orders of magnitude
Analysis modes	CT value analysis, absolute quantification analysis	CT value analysis, absolute quantification analysis
Dimensions [W×D×H]	225×270×132mm	225×270×132mm
Power supply	100-240V or optional 12V, 10A mobile power source	100-240V or optional 12V, 10A mobile power source
Weight	4kg	4kg

SECTION IV

Applications

Biopharmaceuticals, food testing, early genetic disease diagnosis, gene expression analysis, animal disease detection, environmental research, education, and training.

Product value: a compact, portable standalone unit compatible with vehicular power supply, touchscreen control, two- or four-channel fluorescence detection with minimal crosstalk, rapid semiconductor temperature cycling and a 10 GB data memory. Select the configuration before ordering.

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