ADALTIS
MOLECULAR

AMPLIlab is an open platform intended for performing rapid, accurate Polymerase Chain Reaction (PCR), meanwhile real-time measuring nucleic acid signals from DNA-binding fluorescent dyes or labeled probes and converting them to comparative quantitative readouts of DNA or reverse transcribed RNA.

Advanced Automation in Molecular Biology

AMPLIlab

NEW

Fully-automated Molecular Diagnostics Instrument for Clinical Diagnostics
Real-time PCR System for Molecular Biology Analysis

- ABSOLUTE QUANTIFICATION
- RELATIVE QUANTIFICATION
- GENOTYPING
- END POINT FLUORESCENCE
- MELTING CURVE ANALYSIS
- HIGH RESOLUTION MELT

AMPLIlab

Fully automated medical PCR analysis system. This product has many advantages such as scientific and efficient temperature control system and opto-electronic system, powerful and easy-to-use software analysis functions, and humanized control methods. Easy to implement downstream multiple gene detection, quantitative analysis, SNP analysis, HRM analysis and other applications.

6 channel synchronous detection

Six kinds of conventional excitation and detection channels, compatible with most fluorescent dyes and probe types, enabling detection of absolute quantification, relative quantification, and genotyping; introduction of the FRET (Fluorescence Energy Resonance Transfer) channel enables users to have low fluorescence background values. The need for high-sensitivity detection makes detection more convenient, professional and accurate.

The scanning time takes only 7 seconds to complete a one-by-one scan of 96 channels of 6 fluorescence channels, with high efficiency and no fluorescence edge effect.

Diversified operation methods

Based on the one-to-one control of the classic external computer, it has creatively introduced the remote operation of the local area network and local operation mode of the instrument. The built-in 10.4 inch touch screen is equipped with self-developed control software, experimental settings, real-time monitoring of experiments, and instrument settings.

High sensitive and precise optical system

High-sensitivity and wide dynamic range of fluorescence detection system, sample dynamic range could be from 1 to 10^{10} copies
Fast and precise mechanical scanning structure ensures the illumination uniformity of 96 wells, eliminate edge effects, no need for ROX calibration.

The fluorescence excitation light source adopts the high-intensity and long-life LED, bulb luminance will not attenuation over time, free maintenance optical system through the entire life.

The optical system is located on the upper part of the instrument. During operation, the top is excited and scanned. There is no need to worry about the adverse effects of dust in the vent post.

Professional designed fluorescence filters realize the highly fluorescence transmittance and meanwhile minimize the fluorescence channel crosstalk.

The compact, scientific and logical optical system integrates 6 fluorescence detection channels to achieve a number of technological breakthroughs. At the same time, it increases the temperature control to ensure the accuracy and stability of fluorescence detection.

Fluorescence intense detection (%)
- Fluorescence intensity detection accuracy   CV<0.5%
- Fluorescence intensity detection repeatability   CV<0.5%

Accurate and efficient temperature control system

Based on the Peltier effect, six semiconductor cooling sheets are arranged under the Block. The temperature uniformity, accuracy, and temperature rise/fall rate are all significantly improved, shortening the experimental period, realising the temperature gradient function, eliminating the need for annealing temperatures in the past. Repeatedly explored to improve the efficiency of the experiment.

The Amplilab system has a number of thermal functions and the gradient system is nonlinear.

Powerful and complete software features

According to the needs of users in different industries AMPLIlab has various function modules such as absolute quantification, relative quantification, SNP analysis, HRM analysis, etc. The custom report template function highlights the fine and professional detection reports. The right management function further protects your experimental data and ensure data security.

Reserve fully automated features

The sample bin can be ejected and closed by software control, leaving an interface for the loading of the PCR plate in the fully automatic nucleic acid detection workstation at the later stage.

The open LIS port is compatible with the current mainstream LIS system and serves as a station for sample information and experimental data, conduction and integration to make technical preparations.

Intimate auxiliary functions

Real-time storage of experimental data during experimental operation.

Automatic power-off protection function avoid the loss of experimental data and waste of reagents due to abrupt abnormal power-off, automatic execution of unfinished experiments after power restoration, and the formation of a complete experimental data report.

With the intelligent troubleshooting function, the system can intelligently determine the type of fault and provide the scope of maintenance and inspection, which facilitates the later maintenance of the equipment.
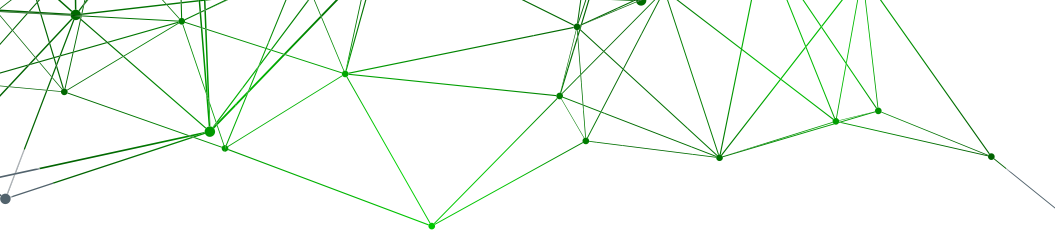
EASY-TO-USE SOFTWARE

- Friendly interface and clearly functional modules design, first-time users can easily start a new experiment
- All experiment data and setting options are shown conveniently on a single interface

INSTRUMENT MANAGEMENT & DATA TRANSMISSION

- Instrument management allows you to manage all the AMPLIlabs in the WLAN
- More than thousands results can be stored in the device
- USB or WLAN easily transfer experiments data anywhere you need
- All running information in one screen, intuitively and simply

EXPERIMENTS MANAGEMENT

- Multi-options to start an experiment:
  New, New for Existed, Open data file, Double click data file
- User can define the experiments name for documentation
- User can define the data storage directory by himself
- Pre-installed templates can help user more easier to edit the protocols
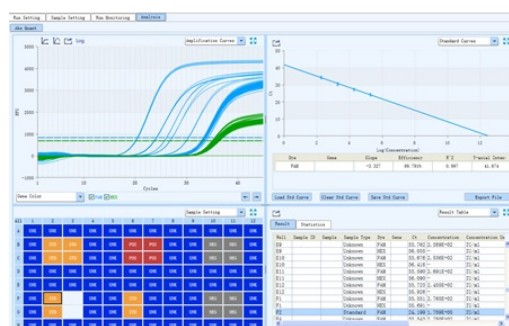
DATA ANALYSIS

- Optional baseline setting: Automatic or Manual
- Multi-option analytical method for different requirements:
  Automatic or Manual threshold method, normalization method
- Reference Dye analysis

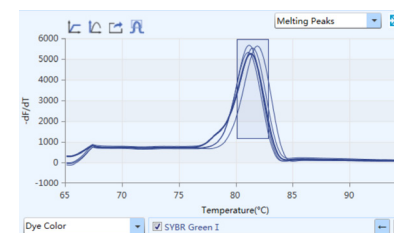## MOST COMPREHENSIVE DATA ANALYSIS
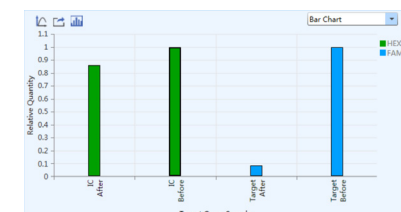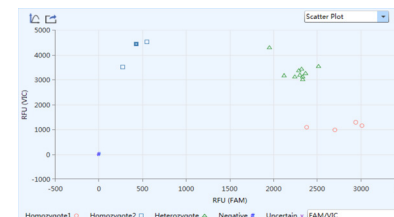
Multiple analysis methods available
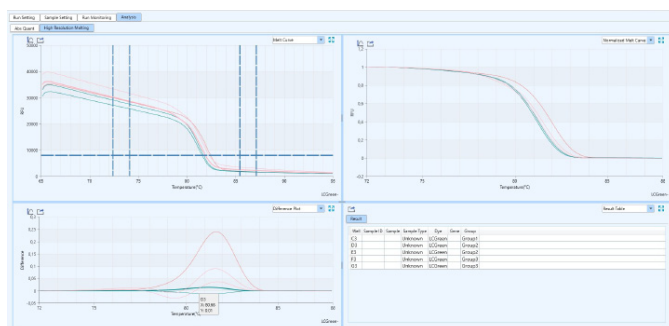
HRM Analysis
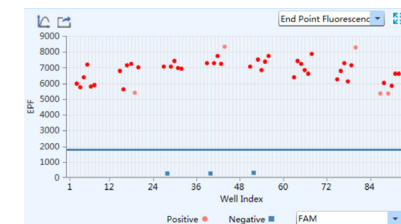

Absolute Quantitative Uniformity

Melting Curve Analysis


Relative Quantification

Genotyping

End Point Fluorescence

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Block type	Peltier
Sample capacity	96 wells
Reaction volume	0-100 ul
Consumables	0.2ml 96-well Plates (unskirt); 0.2ml 8-strip PCR tubes, 0.2ml PCR single tube (Optical clear flat cap, frosted, white tube)
Heating/Cooling method	Peltier
Temperature range	0° - 100°
Hot Lid temperature range	40.0°C - 110.0°C
Temperature accuracy	± 0,1 °C
Temperature uniformity	± 0,1 °C
Excitation light source	LED light sources
Detect system	Photodiodes
Detection method	6 channels scanning at the same time, no edge effect
Range of Excitation / Emission wavelengths (nm) / Dye	Ch 1 465 /510 FAM/SYBR Green I/SYTO9/EVA Green/ LC Green; Ch 2 527/ 563 HEX/VIC/TET/JOE; Ch 3 580 /616 ROX/Texas Red; Ch 4 632/ 664 Cy5 Ch 5 680 /730 Alexa Fluor 680 Ch 6 465 /616 FRET
Scanning Time	Complete detection of 96 wells in 6 fluorescence channels in 7 seconds
Sample linearity	/r/ $\geq$ 0.999
Sample repeatability	Ct value CV $\leq$ 0.5%
Sample dynamic range	$1\text{-}10^{10}$ copies
Control modes	10,4" Touch screen, PC direct control, WLAN control
Power failure protection	Automatically start running experiment after power supply, no need wait PC software
LIS connection	CSV, Excel, TXT format data output open for LIS connection
Communication Port	1 Ethernet and 3 ports USB
PC operating system	Win 7, Win 10
Power usage	AC 100 to 125 V/200 to 240 V (50/60 Hz)
Power consumption	900 VA
Work environment	Temperature 10°C-30°C, Humidity: 20%-85%
Footprint	355mm X 480mm X 485mm
Weight	30kg
Product code	ALB01

- Statistics analysis: Replicate, Gene types
- Heating map options: Ct, Concentration, Flurescence
- LIS connectivity, can export CSV, Excel and Txt format
- Row data and results can export in Excel format
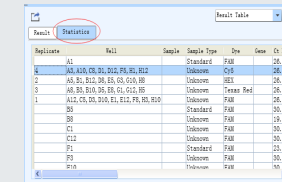
Statistics analysis

Heating map

- Standard with 10.4'' or 7'' LCD touch screen, functions quickly accessible through simple, one-touch commands
- Wizard operation to lock and unlock the transport locker
- Message alarm indicate the status of the machine
- USB port update software and firmware
- Unique power-off protection function can save all the setted configurations for sudden power outages, and allow the experiment continues when power supply is restored
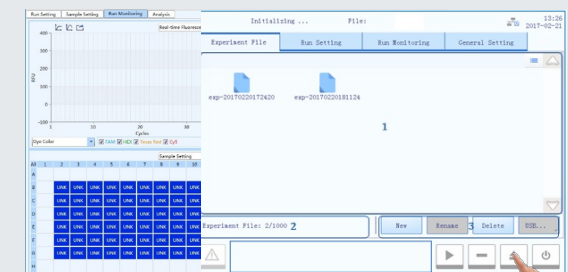
Amplilab Optical System

Advanced Optics

- High-brightness, long-life maintenance-free
  LED light source provides high-sensitivity
  and wide dynamic range.

- Photodiode (PD) detection with top excitation
  and scanning.

Fast and precise

- All fluorescence channels are scanned simultaneously
  without fluorescence edge effects

- Complete the detection of 96 wells
  of all fluorescence channels in 7 seconds

- No need for ROX calibration.

Real-time PCR System Configuration

	Model	Samples	Channel	Gradient
	AMPLilab	96	6	Yes

Channel	CH1	CH2	CH3	CH4	CH5	CH6
Excitation / Emission Wavelengths (nm)	465 /510	527/ 563	580 /616	632/ 664	680 /730	465 /616
Dyes	FAM SYBR Green I SYTO 9 EvaGreen LC Green	HEX VIC TET JOE	Texas Red ROX	Cy5	Alexa Fluor 680	FRET

Designed for Flexible Use

System can be installed in three distinct configurations, providing unmatched flexibility and convenience.

1. Co-located configuration (PC control)
2. Standalone (PC-free) configuration (Data can be export by USB and analysis on PC)
3. Network configuration (PC software automatically detect all systems in LAN
   and allow remote monitoring one of experimental progress and downloading
   of the completed run file to the PC at your desk, up to 10 instruments can be monitored via one PC)

1. Co-located configuration (PC control)

2. Standalone (PC-free) configuration

3. Network configuration

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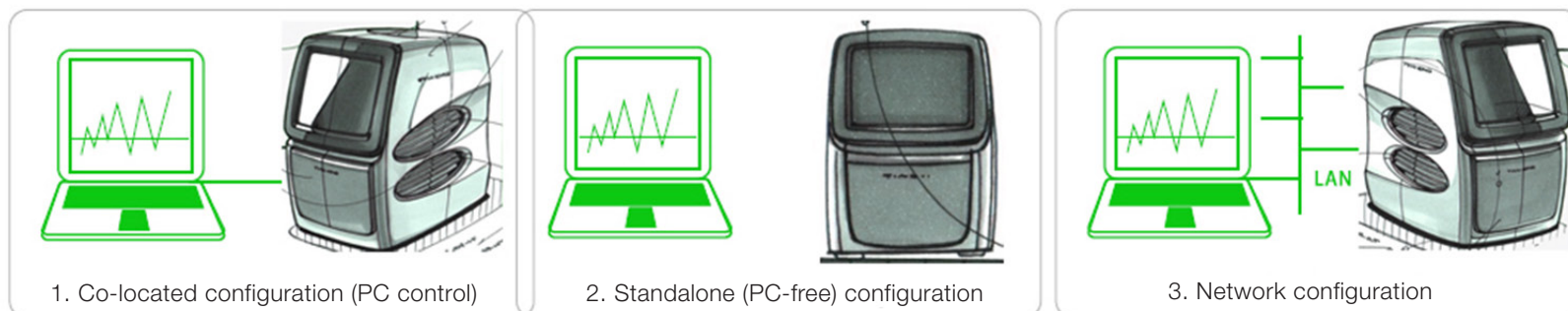
MOLgen

Molecular diagnostic panels and reagent kits for nucleic acid extraction and RT-PCR of infectious diseases and genomics

The diagnostic kits of MOLgen series were developed for detection, confirmation and genotyping of infectious and genetics diseases by Real-Time PCR. The proprietary development enable us to provide you with a standardised, simple and readily reproducible procedure.

We provide convenient solutions in reagent configuration such as lyophilised, ready-to-use mixtures with a long shelf-life and the possibility to ship the kits at room temperature.

- NUCLEIC ACIDS UNIVERSAL EXTRACTION
- SAMPLE VALIDATION
- MULTI RESPIRATORY & **SARS-COV-2**
- HUMAN IMMUNODEFICIENCY VIRUS (HIV)
- BLOOD-TRANSMISSIVE INFECTIONS
- HEPATITIS
- TUBERCULOSIS
- TICK-BORNE INFECTIONS

- GASTROINTESTINAL INFECTIONS
- HUMAN HERPES VIRUSES
- TORCH INFECTIONS
- SEXUALLY TRANSMITTED INFECTIONS (STI)
- MULTIPLEX DETECTION OF STI
- HUMAN PAPILLOMA VIRUSES (HPV)
- VAGINAL BIOCENOSIS AND MICROFLORA
- CANDIDIASIS

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ADALTIS is certified in compliance with ISO9001 and ISO 13485.
Our products are CE-IVD.