

PRODUCT CATALOGUE

2024



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Biological Sample Preparation

Leap-Pure S24 / H24 / R16

Nucleic Acid Purification System NEW

Leap-Pure series nucleic acid purification system is designed for large-volume cfDNA extraction and FFPE block automatic extraction. It adopts the combination of magnetic rod method and pipetting method to solve a series of problems such as difficult to mix large-volume samples, incomplete magnetic absorption, and difficult to stratify and extract FFPE block automatically.

The processing capacity of Leap-Pure S24 / H24 is 1~24 at a time and the consumables are designed in strips. The minimum processing volume of elution well is 20 μ L (FFPE block / 1 mL cfDNA).

Leap-Pure R16 uses the same extraction block as Leap-Pure S24 / H24, with a sample throughput of 1~16, and supports the extraction of general samples, FFPE block and cfDNA. At the same time, a set of pipetting parts is built in, which is suitable for the set-up of qPCR and digital PCR, and supports the general 96-well PCR plate and various digital PCR chips, which can be freely selected according to the actual situation.



	Leap-Pure S24	Leap-Pure H24	Leap-Pure R16
Throughput	1-24	1-24	1-16
Sample Processing System	1-15 mL	1-20 mL	1-15 mL
cfDNA Extraction Supporting Consumables	2 mL / 8 mL / 15 mL cartridge	20 mL cartridge	2 mL / 8 mL / 15 mL cartridge
FFPE Block Nucleic Acid Extraction	✓	-	✓
PCR Set-Up	-	-	✓

Features

01 Effectively Prevent Pollution

Equipped with one UV lamp and disposable consumables, effectively preventing cross-contamination. With HEPA and fans, it can prevent the leakage of pollutants.

02 Special Method to Ensure Mixing and Magnetic Absorption Effect

The elution tube is stored separately, with the elution volume ranges of 20~200 μ L, which can be directly taken away and stored without further transfer.

03 Consumables Anti-Collision Detection

Horizontal motion components are equipped with sensors on both sides. During self-checking or running process, if there are uneven placement of consumables on the cartridge's holders and sample holders, the instrument automatically alarms, effectively avoiding experimental errors and machine damage caused by improper placement of consumables.

04 Large Volume Extraction, Small Volume Elution

Leap-Pure series supports the automated extraction of FFPE block from dewaxing (except for Leap-Pure H24) and the automated extraction of cfDNA from large volume samples, with the maximum reaction system of 15 mL (Leap-Pure H24 maximum reaction system is 20 mL) and the minimum elution volume of 20 μ L (FFPE block / 1 mL cfDNA).

05 Support PCR Set-Up (Leap-Pure R16)

Include the set-up of PCR, qPCR, and ddPCR.

06 Intuitive and Open Software

Visual interface design, user authorization management, the administrator has the highest authority. Open software design, suitable for most magnetic bead nucleic acid extraction reagents on the market.

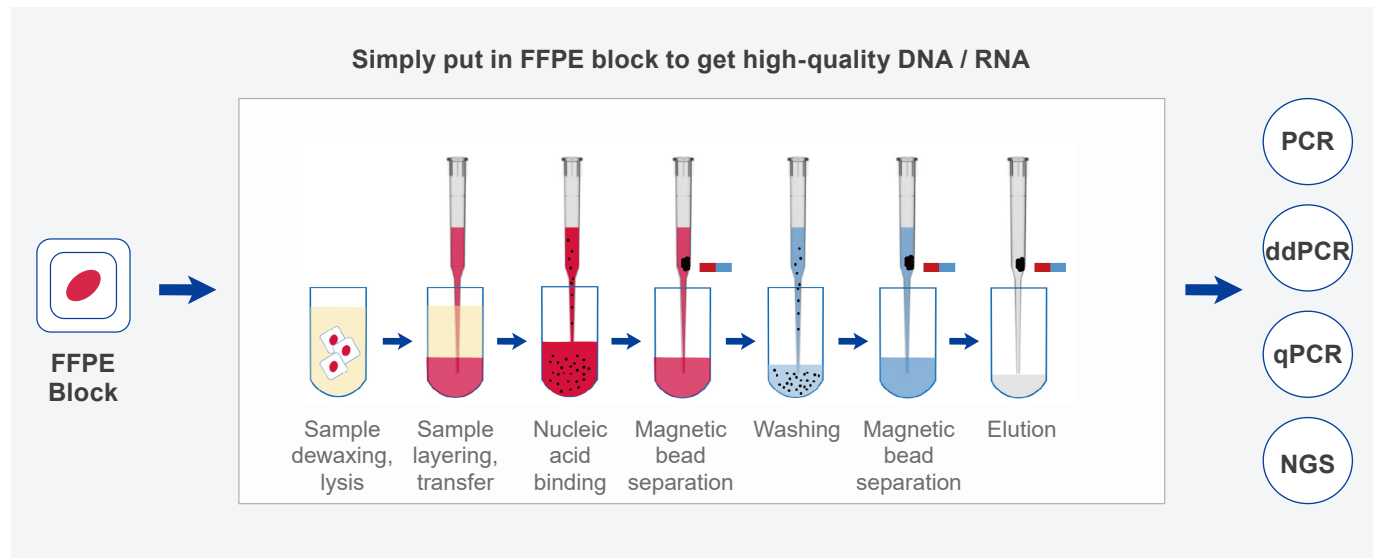
07 Reagent Pre-Packaging (Only FFPE)

The reagents can be pre-packaged. Equipped with a prick film structure, no need to tear the film, reducing the manual operation time and effectively avoiding the deviation of experimental results caused by liquid addition errors.

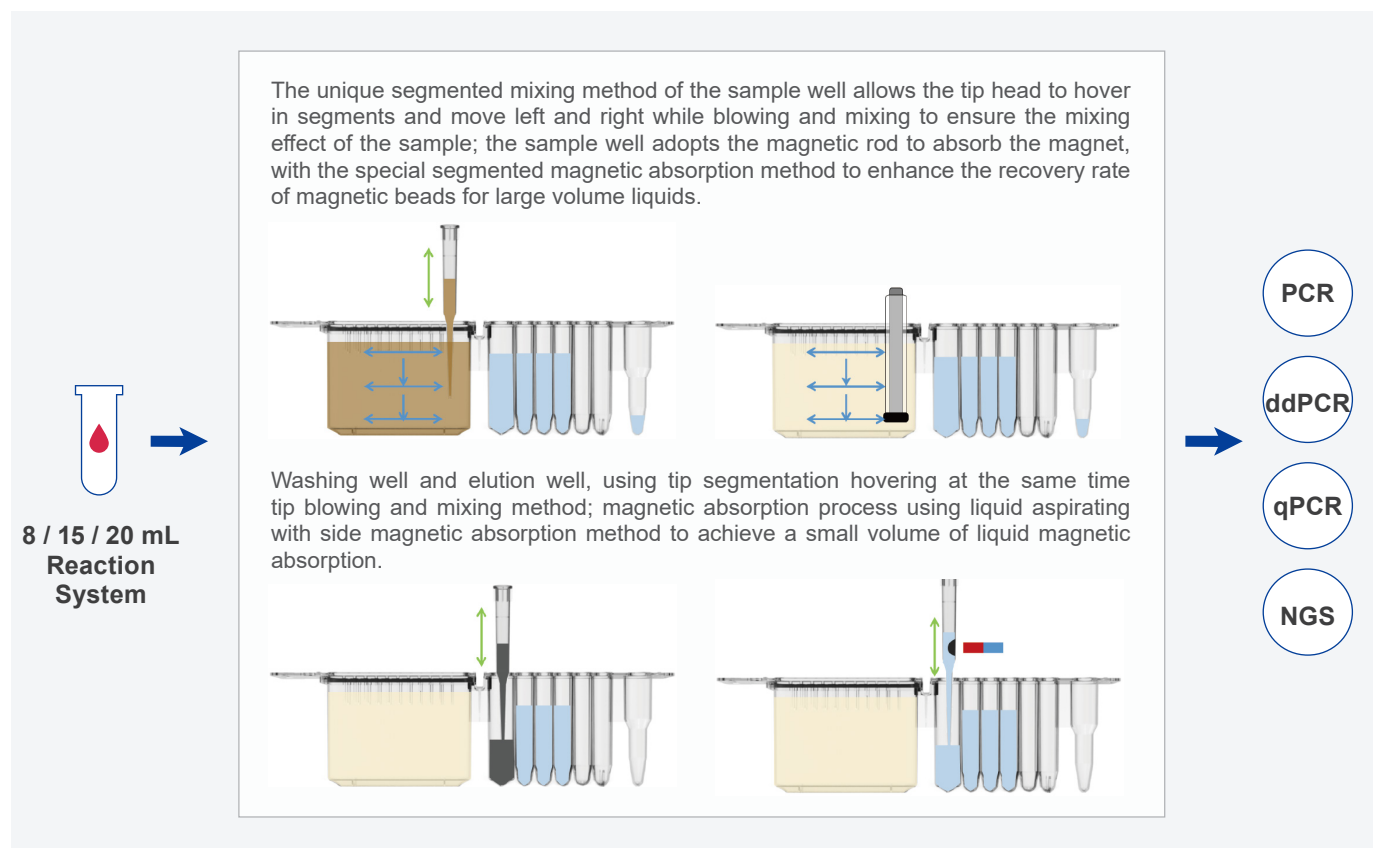
08 Automatic Dewaxing

The dewaxing step in FFPE extraction can be completed inside the machine without additional dry bath incubator. After layering, the bottom liquid is automatically transferred without manual intervention, solving the problem of difficulty in FFPE automatic layering and liquid extraction, truly achieving full automatic extraction of FFPE blocks.

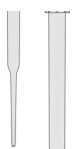
FFPE Block Extraction Process



cfDNA Extraction Process



General Consumables



1 mL Special Tip + Tip Holder

Special tips for pipetting, mixing and magnetic absorption



Magnetic Rod Comb + Comb Holder

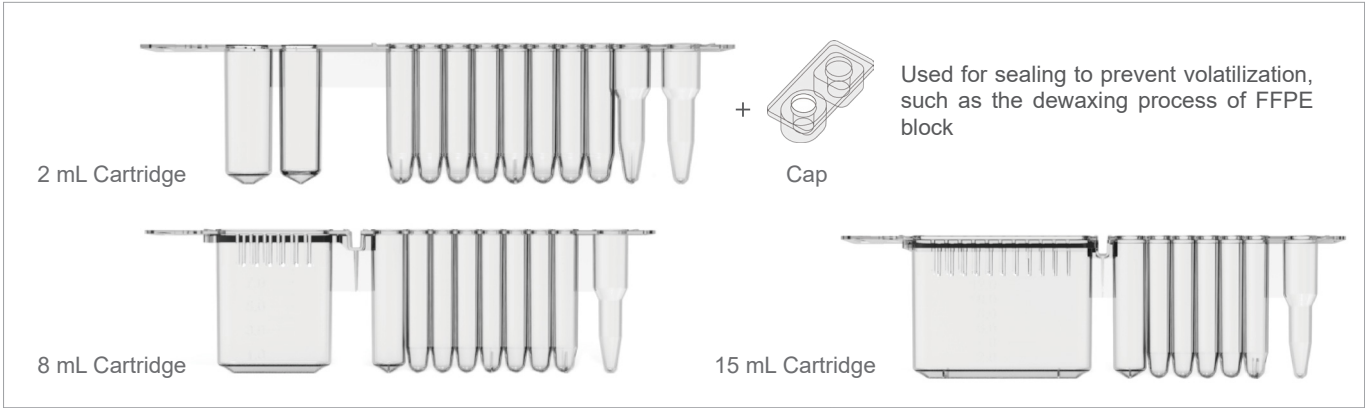
Used for the magnetic absorption process of large volume sample wells, with the magnetic rods to achieve large volume magnetic absorption without residue

Cartridge's Holder

Different consumables correspond to corresponding cartridges, which include 2 mL cartridges (made of metal / plastic), 8 mL, 15 mL and 20 mL cartridges (made of metal / plastic), making it convenient for researchers to add samples / reagents and saving time for placing consumables.



Leap-Pure S24 / R16 Consumables



Leap-Pure H24 Consumables

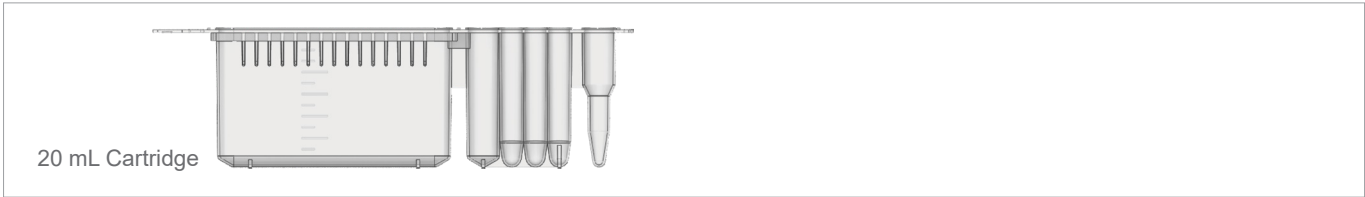
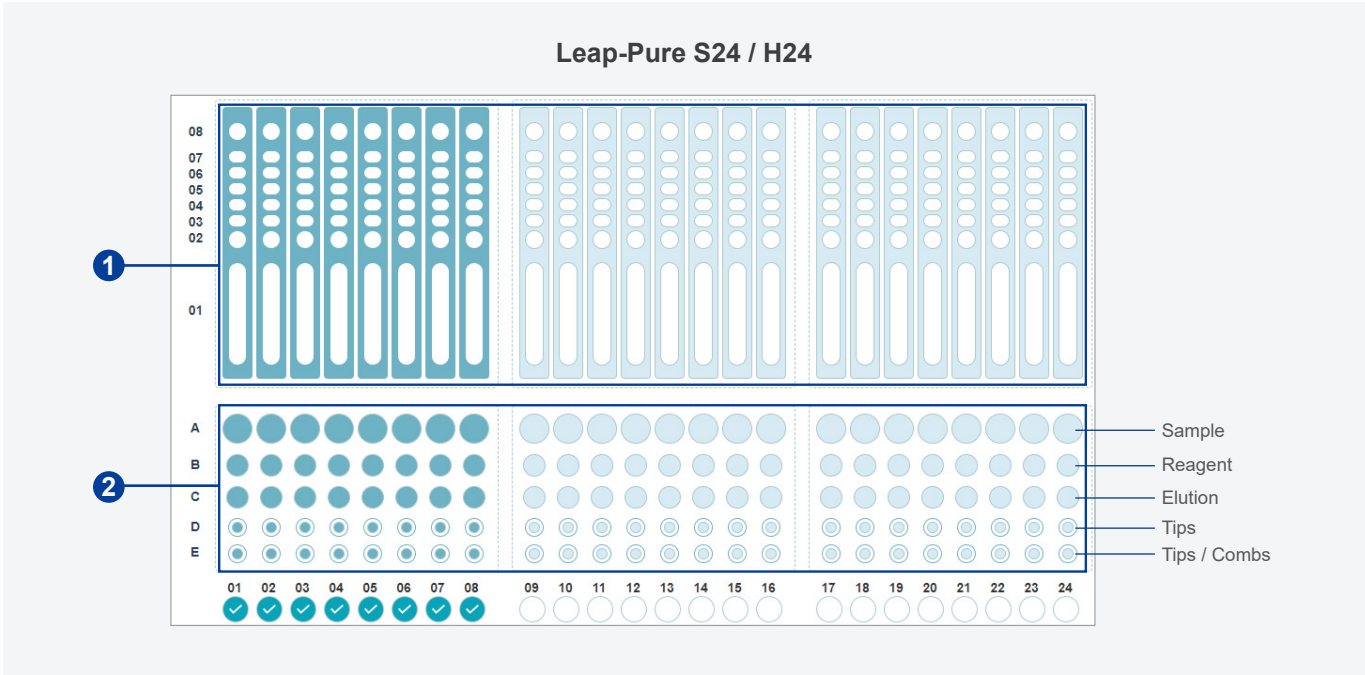


Plate Layout



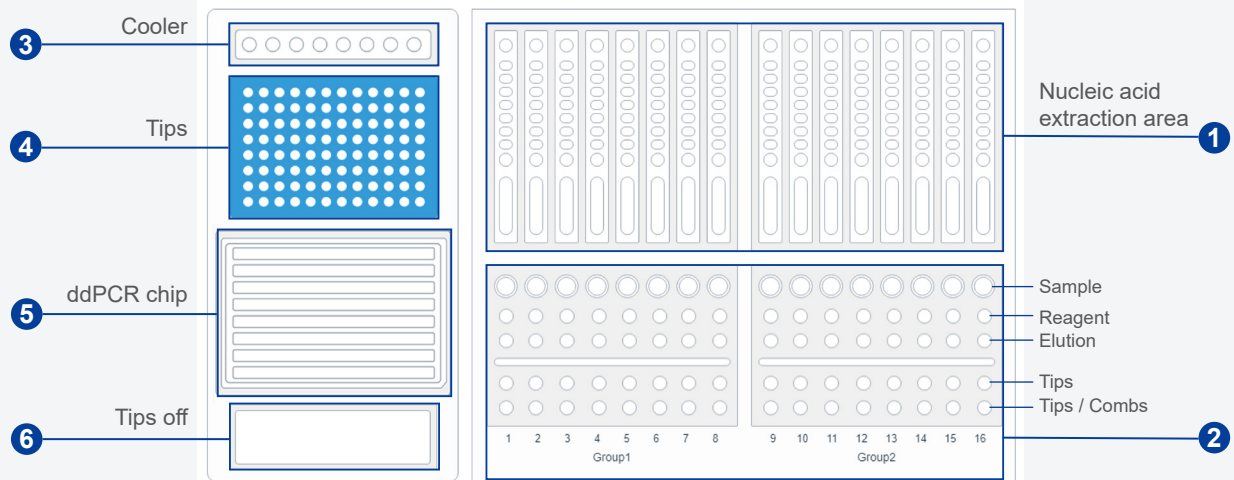
1 Nucleic Acid Extraction Area

Suitable for various types of cartridges, mainly used for loading extraction reagents, can be pre-packaged, and the instrument is equipped with puncture structure.

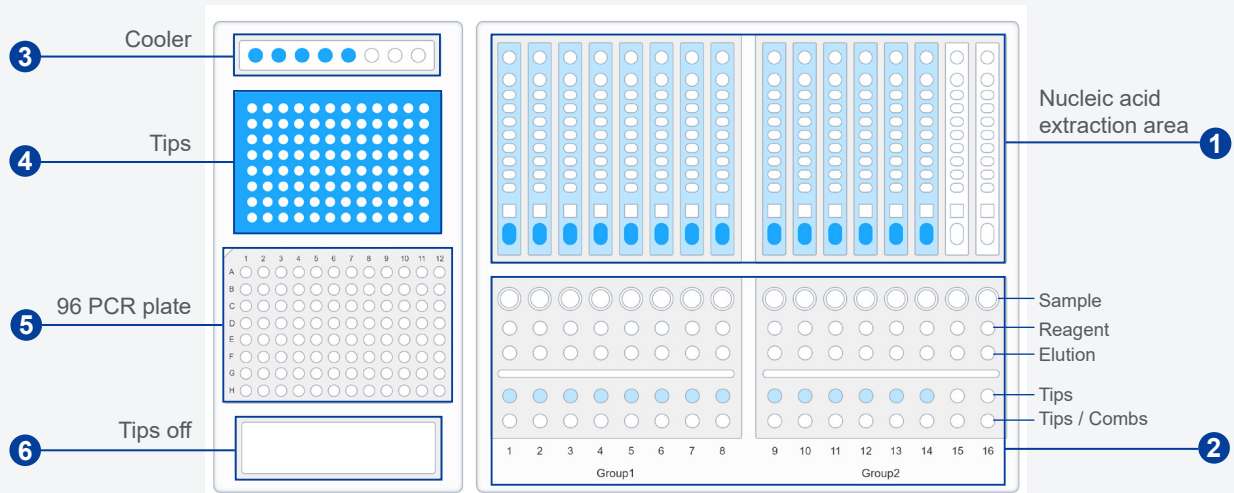
2 Sample Consumable Rack

Used for placing various consumables during the extraction process, such as tips, product recovery tube, etc.

Leap-Pure R16 - ddPCR Plate Layout



Leap-Pure R16 - qPCR Plate Layout

**1 Nucleic Acid Extraction Area**

Mainly used for loading extraction reagents, can be pre-packaged (only FFPE), and the instrument is equipped with puncture structure.

2 Sample Consumable Rack

Used for placing various consumables during the extraction process, such as tips, product recovery tube, etc.

3 Cooler

8×2 / 1.5 mL frozen storage tube is designed for storage of detection reagents in the PCR set-up, and has the function of 4 °C low-temperature storage.

4 Tip Area

Used for loading the tips during PCR set-up.

5 PCR Set-Up Area

ddPCR Variable structure, supporting 96-well qPCR plate and digital PCR chip loading.

qPCR Variable structure, supporting 96-well qPCR plate and digital PCR chip loading, and also suitable for 8-strip PCR tubes and microplates.

6 Waste Area

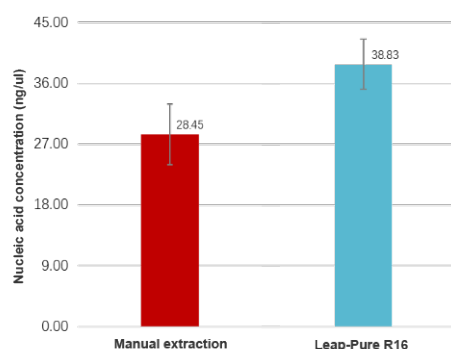
Used for storing waste tips during the experiment.

FFPE Tissue Sample DNA Extraction Kit

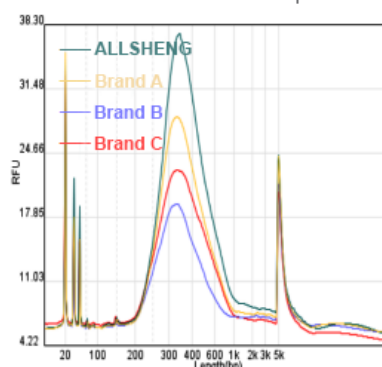
Allsheng® FFPE tissue sample DNA extraction kits use efficient tissue lysis buffer and non-toxic dewaxing agent for one-step dewaxing and lysis, and use silica hydroxy magnetic beads and nucleic acid separation and purification methods to quickly and efficiently extract DNA from fixed solution tissues such as paraffin embedded tissue slices, paraffin blocks, or formalin. The reagent does not contain harmful substances such as xylene, and is easy to operate without the need for multiple centrifugations. Paired with Leap-Pure S24 / R16, sample loading without external lysis is more suitable for automated extraction.



Comparison of Extraction Effects Between Automated and Manual Methods



Comparison of Extraction Effects and Library Preparation Results of Similar Kits



Group	Qubit Concentration	Library Production
Brand A	17.8 ng/μl	445 ng
Brand B	13 ng/μl	325 ng
Brand C	17.1 ng/μl	427.5 ng
ALLSHENG	17.5 ng/μl	437.5 ng

Leap-Pure S24 / R16 uses tips for better mixing effect. Paired with Allsheng® FFPE tissue sample DNA extraction kit, it shows significantly higher extraction efficiency than manual extraction.

The comparison of extraction effects and library preparation results between Allsheng® FFPE tissue sample DNA extraction kit and similar kits shows that the experimental results are close to or better than similar products.

Specification

Model	Leap-Pure S24	Leap-Pure H24	Leap-Pure R16
Throughput	1-24	1-24	1-16
Sample processing system	1-15 mL	1-20 mL	1-15 mL
Consumable	2 mL / 8 mL / 15 mL cartridge	20 mL cartridge	2 mL / 8 mL / 15 mL cartridge
FFPE block nucleic acid extraction	✓	-	✓
PCR set-up	-	-	✓
Power supply	AC 220 V, 50 Hz, rated power 600 W	AC 220 V, 50 Hz, rated power 600 W	AC 220 V, 50 Hz, rated power 450 W
Dimension (W×D×H)	740×640×586 mm	740×640×586 mm	740×640×623 mm
Weight	85 kg	85 kg	105 kg

Working principle	Magnetic bead method, magnetic rod type, pipetting type / tip blowing and aspirating mixing
Sample	FFPE, whole blood, plasma, stool, sputum, etc
Elution volume	20~200 μL [the minimum processing volume of 20 μL (FFPE block / 1 mL cfDNA)]
Stability	CV ≤5 %
Pre-packaged reagent	Support the pre-packaged reagent to be directly on the machine and automatically prick the film (2 ml)
Software operation	Windows system, 10-inch color touch screen
Account management	User authorization management, programs and instruments can be customized
Instrument port	USB port, LAN port
Information management	Support external code scanner
Pollution control	Built-in HPEA, UV sterilization

Extraction Temperature Control

Purpose	Used for incubation during the extraction process, such as lysis, elution, etc
Temp. control range	RT. ~120 °C
Average heating rate	≥0.2 °C/s (at 25 °C)
Temp. accuracy	≤±1 °C @ 100 °C (at 25 °C)
Temp. uniformity	≤3 °C @ 100 °C (at 25 °C)
Temp. stability	≤±0.5 °C @ 100 °C (at 25 °C)

Reagent Refrigeration (Leap-Pure R16)

Purpose	Used for reagent refrigeration, supporting automatic cooling upon startup
Temp. control range	4 °C~95 °C
Temp. accuracy	≤±1 °C @4 °C
Temp. uniformity	≤1.5 °C @4 °C

Pipetting Block 1

Purpose	Nucleic acid extraction			
Pipetting range	20-1000 µL			
Pipetting precision	20 µL: ≤5 %	100 µL: ≤1.5 %	500 µL: ≤1 %	1000 µL: ≤1 %
Pipetting accuracy	20 µL: ±8 %	100 µL: ±2 %	500 µL: ±1 %	1000 µL: ±1 %

Pipetting Block 2 (Leap-Pure R16)

Purpose	Automatic pipetting			
Pipetting range	1-200 µL			
Pipetting precision	1 µL ≤8 %	20 µL ≤2 %	100 µL ≤1 %	200 µL ≤1 %
Pipetting accuracy	1 µL: ±12 %	20 µL: ±2 %	100 µL: ±1 %	200 µL: ±1 %

Ordering Information

Code	Product name
AS-17250-00	Leap-Pure S24 nucleic acid purification system
AS-17260-00	Leap-Pure R16 nucleic acid purification system
AS-17270-00	Leap-Pure H24 nucleic acid purification system
AS-17251-01	2 mL cartridge
AS-17251-02	8 mL cartridge
AS-17251-03	15 mL cartridge
AS-17271-01	20 mL cartridge
AS-17251-04	Cap
AS-17251-05	1 mL special tip + tip holder
AS-17251-06	Magnetic rod comb + comb holder
AS-17251-07	5 mL sample tube

Code	Product name
AS-17251-08	12 mL sample tube
AS-17251-09	1.5 mL storage tube
AS-17251-10	2 mL storage tube
AS-17251-11	2 mL cartridge's holder (made of metal)
AS-17251-12	8 / 15 / 20 mL cartridge's holder (made of metal)
AS-17251-13	2 mL cartridge's holder (made of plastic)
AS-17251-14	8 / 15 / 20 mL cartridge's holder (made of plastic)
	Allsheng® FPPE tissue sample DNA extraction kit
RS-HSCF0101	Nucleic acid extraction or purification reagent (1 mL) 10 T / 24 T / 50 T / 100 T
RS-HSCF0102	Nucleic acid extraction or purification reagent (2 mL) 24 T / 50 T
RS-HSCF0104	Nucleic acid extraction or purification reagent (4 mL) 24 T / 50 T

Auto-Pure 4800

Nucleic Acid Purification System

Auto-Pure 4800 is a high-throughput automatic nucleic acid extraction equipment, based on the magnetic bead method to extract nucleic acid. The steps of pipetting, lysis, washing, elution and PCR set-up can be automatically completed in the workstation, one-stop operation without manual intervention. The maximum reaction system is 1 mL. It can extract 48×1 mL sample system at the same time. The automated operation steps avoid human error, and the experimental results are more reliable and repeatable.

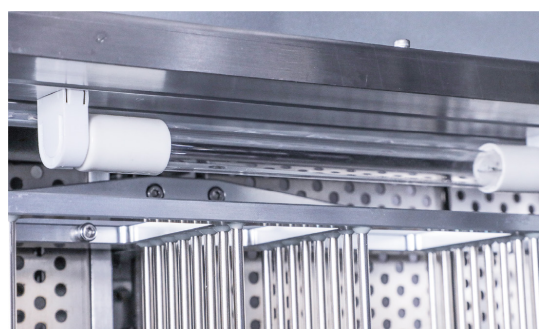


Automated Extraction + PCR Set-Up:



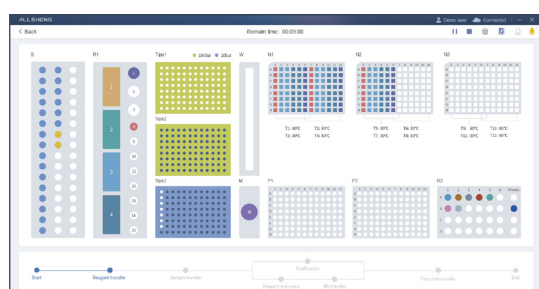
01 Fast & Flexible Experiment

- Time for the extraction: 48 samples - 15 ~ 30 min (depending on different reagents)
Time for the pipette sample: 48 samples - 13 min
- Bottled or prefilled reagents can be selected for extraction according to actual needs



02 Effective Cross-Contamination Prevention

- Negative pressure filter system to prevent aerosol contamination
- Full coverage UV sterilization, exhaustive to clean the worktable



03 Graphical User Interface, Simple and Easy to Operate

04 High-Precision Liquid Handling

- 1+2 pipettors combination with pressure detection technology
- Detailed pipetting parameter settings for different liquids can effectively improve the accuracy

05 Vortex Magnetic Beads and PCR Reagent Block

- Specially designed for magnetic beads, the vortex is stable which improves the efficiency of the experiment
- The PCR reagent block can be customized according to customer needs

Plate Layout



1 Pipetting Arm

3-channel pipetting arm, 2×1000 μ L pipettors, 1×200 μ L pipettor.

2 Sample Area

The 48 test tube rack can hold different consumables such as sample tubes, test tubes and centrifuge tubes. And it is equipped with a barcode scanner.

3 Reagent Area

Two areas: nucleic acid extraction reagent and PCR reagents.

4 Tip Area

2×1000 μ L and 1×200 μ L tip racks.

5 Waste Area

Used tips will be disposed into the waste container, which can intelligently calculate whether the tips are full and increase the storage space.

6 Vortex Magnetic-Beads

Specially designed for magnetic beads, the vortexing is stable which improves the efficiency of the experiment.

7 Nucleic Acid Extraction Area

Can extract 48 samples at the same time. Built-in heating incubator temp. range up to 120 $^{\circ}$ C, which can process the sample lysis and nucleic acid elution.

8 PCR Setup Area

2 x 96 PCR plates or 24 x 8 strip PCR tubes.

Specification

Model	Auto-Pure 4800
Function	Automatic pipette samples, extract nucleic acid and setup PCR systems
Information management	Support external USB scanner, barcode scanning function, automatic scanning function
Pipetting principle	Air displacement pipetting technology
Pipettor	Two 1000 µL pipettors and one 200 µL pipettor
Pipetting range	1-1000 µL
Tips	Allsheng tips, and other tips compatible with this instrument
Liquid detection	Pressure detection: liquid level detection, tip clogging detection and residual liquid detection
Samples per run	1-48
Process volume	50-1000 µL
Extraction uniformity	CV ≤5 %
Single sample consumables	Support
Heating temperature	Elution and lysis temperature control: RT. ~120 °C
Cooling block	0 °C~105 °C (optional)
UV sterilization	Separate UV lamp: extraction area, pipetting area and waste container area
Fan filter	Equipped with three HEPA filters
Instrument port	USB port
Power supply	220 V, 8 A, 50 / 60 Hz
Power	Standby 30 W, maximum 550 W
Noise	≤ 60 dB
Net weight	130 kg

Pipetting Accuracy

Pipettor	200 µL	1000 µL
Pipetting range	1-200 µL	5-1000 µL
Accuracy (A)	1 µL: ±12 % 100 µL: ±1 %	20 µL: ±3 % 200 µL: ±1 %
		5 µL: ±5 % 500 µL: ±1 %
		100 µL: ±2 % 1000 µL: ±1 %
Precision (CV)	1 µL: ≤ 8 % 100 µL: ≤ 0.8 %	20 µL: ≤ 1.5 % 200 µL: ≤ 0.5 %
		5 µL: ≤ 2.5 % 500 µL: ≤ 0.4 %
		100 µL: ≤ 1.25 % 1000 µL: ≤ 0.4 %

Ordering Information

Code	Product description	Code	Product description
AS-17210-00	Auto-Pure 4800	AS-17202-02	1.5 mL centrifuge tube
AS-17031-02	Magnetic rod comb	AS-17202-04	7 mL centrifuge tube
AS-17061-02	96-deepwell plate 2.2 mL	AS-17202-07	15 mL wide-mouth plastic bottle
AS-TT-200-N	200 µL tip (transparent, boxed)	AS-17202-08	100 mL reservoir
AS-TT-1000-N	1000 µL tip (transparent, boxed)	AS-17202-09	Medical waste packaging bag
AS-17202-01	5 mL sample tube	RS-HSCF0101	Nucleic acid extraction or purification reagents (1 mL Specification: 10 T, 24 T, 50 T, 100 T)

Auto-Pure 2400 / 2400M

Nucleic Acid Purification System

Auto-Pure 2400 / 2400M is a high-throughput automatic nucleic acid extraction equipment, based on the magnetic bead method to extract nucleic acid. The steps of pipetting, lysis, washing, elution and PCR set-up can be automatically completed in the workstation, one-stop operation without manual intervention. The maximum reaction system is 10 mL. It can extract 24×10 mL sample system at the same time. The automated operation steps avoid human error, and the experimental results are more reliable and repeatable.

2400M includes a temperature change block with no cross-contamination. With the corresponding software, it can automate the entire process of methylation transfer, simplifying complicated experiments. In addition, the full-coverage UV sterilization system and negative pressure filter system effectively prevent cross-contamination.



Auto-Pure 2400: Automated Extraction + PCR Set-Up



Auto-Pure 2400M: Automated Extraction + Methylation Transfer + PCR Set-Up



Note: In addition to meeting the needs of automated nucleic acid extraction as 2400, 2400M can also automate the methylation transfer process. This step of "Quality control" is completed using the supporting instrument - Fluo-200 / 800 fluorometer.

01 Large Volume Extraction to Meet Special Needs

- The maximum reaction system of the sample library is 5 / 10 mL, which can meet the needs of cfDNA extraction.
- The elution well is eluted in a small volume to meet the nucleic acid concentration requirements.

02 High-Precision Liquid Handling

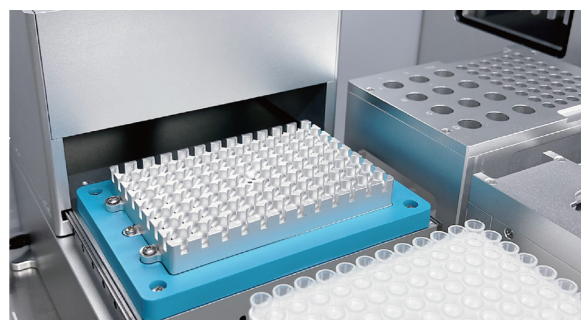


- Dual-channel pipetting design, suitable for 1 mL / 5 mL / 200 μ L pipettor.
- Pipettor's pressure detection technology.
- Detailed pipetting parameter settings for different liquids can effectively improve the accuracy.

03 Easy-to-Learn Operating Software

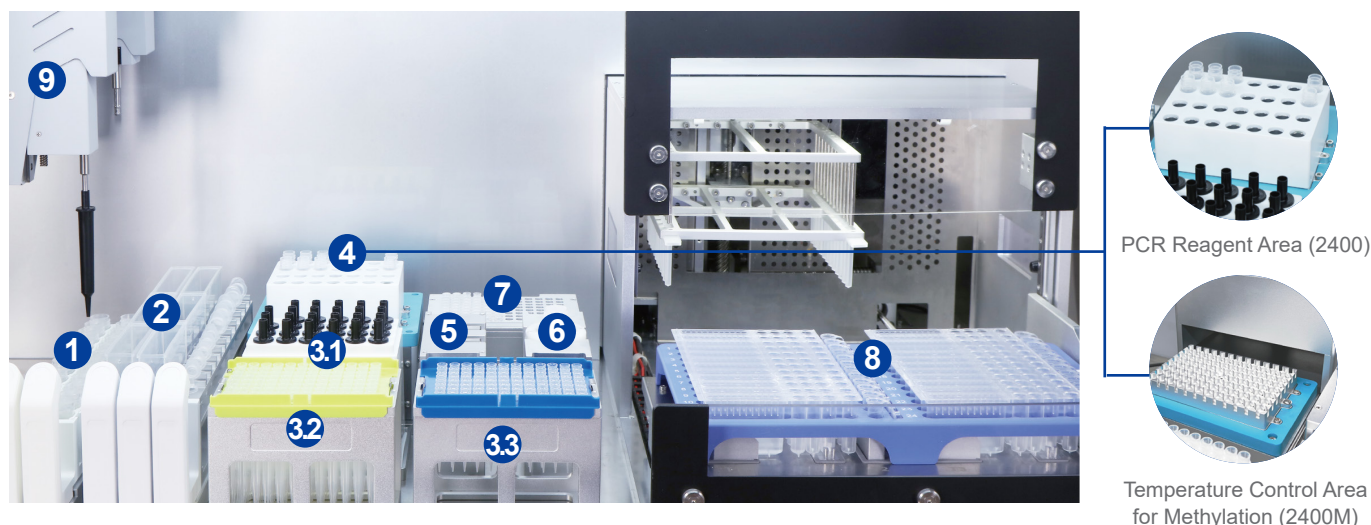
- Graphical user interface, program editing can be completed without complicated operations.
- Built-in comprehensive libraries of consumable carriers and liquids.

04 Methylation Transfer Special Functional Blocks (2400M)



- Block temperature control range 4 $^{\circ}$ C ~ 105 $^{\circ}$ C.
- In order to meet the methylation requirements, 2400M adds a temperature control block to realize multi-stage temperature change.
- Thermo lid design can prevent reagent condensation, and has the technology to prevent cross-contamination.

Plate Layout



Note: The overall layout of 2400M is basically the same as that of 2400, but some blocks have been adjusted to meet the special needs in the methylation.

1 Sample Area

The sample barcode of each test tube is automatically scanned during sample rack loading.

2 Reagent Area

Include 100 mL reagent positions, 7 mL centrifuge tube positions and 1.5 mL / 2 mL centrifuge tube positions.

3 Tip Area

Include 5000 μ L, 1000 μ L and 200 μ L tip racks.

4 PCR Reagent Area (Auto-Pure 2400)

RT. PCR reagent rack, optional refrigeration block.

Temperature Control Area (Auto-Pure 2400M)

Multi-stage automatic temperature change can be realized to meet the needs of methylation.

5 Waste Area

Used tips will be disposed into the waste container, which can intelligently calculate whether the tips are full and increase the storage space.

6 Vortex Magnetic-Beads

Specially designed for magnetic beads, the vortexing is stable which improves the efficiency of the experiment.

7 PCR Setup Area

2400 can setup 4 detection item systems while 2400M is 2.

8 Nucleic Acid Extraction Area

Can extract 1-24 samples. Elution well 2 mL centrifuge tube design, the elution product can be used directly for subsequent experiments.

9 Pipetting Arm

Two-channel pipetting arm, 1 \times (50-5000 μ L), suitable for 1 mL / 5 mL pipettors, 1 \times (1-200 μ L), suitable for 200 μ L pipettors.

2400M Special Application - Methylation Detection

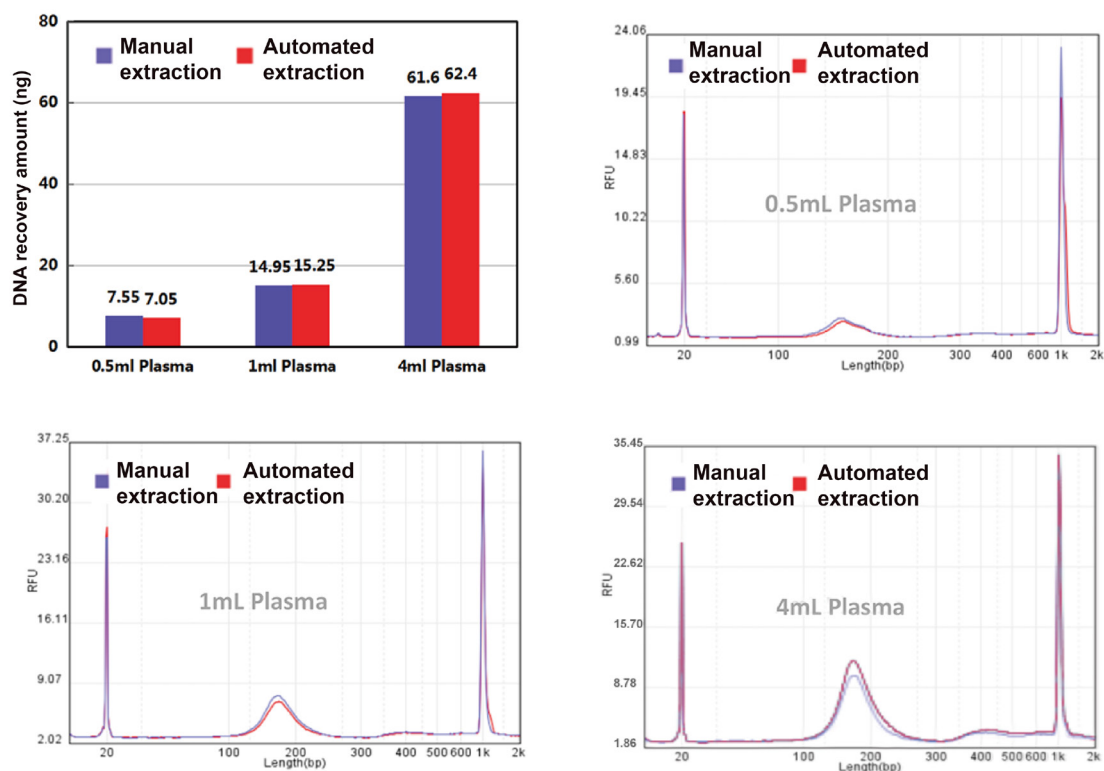
2400M large volume extraction with special functional blocks and software design meet the requirements of methylation detection sample pre-processing experiments, realize the automation of the overall process, effectively reduce labor time and improve the stability of experimental results. The process shown in the figure below can be completed within 2400M except for "quality control":



Application - cfDNA Extraction

The Automatic Extraction Effect of Plasma from Tumor Patients

Compared with the combination of DNA Ladder and newborn bovine serum, the plasma environment of tumor patients is more complicated. In the manual method, the sample needs to undergo high-temperature lysis and other processes, while the automatic method adopts the method of directly mixing reagents such as lysis solution, magnetic beads, and binding solution with the sample and then running on the machine. In order to verify the extraction efficiency of this method for actual samples, 0.5 mL, 1 mL, and 4 mL of tumor patient plasma were taken for cfDNA extraction, and compared with the results of the same sample and manual extraction. The results showed that there was no significant difference in the yields of the two extraction methods under the three volumes, indicating that the automation of the reagents was well matched and met the needs of normal sample extraction.



0.5 mL, 1 mL, and 4 mL of tumor patient plasma were extracted using manual method and automated instruments respectively, with 50 μ L elution volume. The results showed that there was no significant difference between the manual method and the automatic method in terms of concentration or fragment size.

Specification

Model	Auto-Pure 2400 / 2400M
Function	Automatic pipette samples / reagents, extract nucleic acid and setup PCR systems
Information management	Support external USB scanner, barcode scanning function, automatic scanning function
Pipetting principle	Air displacement pipetting technology
Pipettor	One 5000 μ L pipettor and one 200 μ L pipettor
Pipetting range	1-5000 μ L
Tips	Allsheng tips, and other tips compatible with this instrument
Liquid detection	Pressure detection: liquid level detection, tip clogging detection and residual liquid detection
Samples per run	1-24
Process volume	50-10000 μ L
Extraction uniformity	CV \leq 5 %
Single sample consumables	Support
Heating temperature	Elution and lysis temperature control: RT. \sim 120 $^{\circ}$ C

Temp. control block (2400M)	4 °C~105 °C
UV sterilization	Separate UV lamp: extraction area, pipetting area and waste container area
Fan filter	Equipped with three HEPA filters
Instrument port	USB port
Power supply	220 V, 8 A , 50 / 60 Hz
Power	Standby 30 W, maximum 600 W
Noise	≤ 60 dB
Net weight	130 kg

Pipetting Accuracy

Pipettor	200 µL	1000 µL	5000 µL
Pipetting range	1-200 µL	5-1000 µL	50-5000 µL
Accuracy (A)	1 µL: ±12 %	5 µL: ±5 %	50 µL: ±6 %
	20 µL: ±3 %	100 µL: ±2 %	500 µL: ±5 %
	100 µL: ±1 %	500 µL: ±1 %	2500 µL: ±3 %
	200 µL: ±1 %	1000 µL: ±1 %	5000 µL: ±3 %
Precision (CV)	1 µL: ≤ 8 %	5 µL: ≤ 2.5 %	50 µL: ≤ 3 %
	20 µL: ≤ 1.5 %	100 µL: ≤ 1.25 %	500 µL: ≤ 2 %
	100 µL: ≤ 0.8 %	500 µL: ≤ 0.4 %	2500 µL: ≤ 2 %
	200 µL: ≤ 0.5 %	1000 µL: ≤ 0.4 %	5000 µL: ≤ 1 %

Ordering Information

Code	Product description	Code	Product description
AS-17200-00	Auto-Pure 2400	AS-17202-01	5 mL sample tube
AS-17220-00	Auto-Pure 2400M	AS-17202-02	1.5 mL centrifuge tube
AS-17151-01	10 mL cartridge	AS-17202-03	2 mL centrifuge tube
AS-17151-02	Magnetic rod comb	AS-17202-04	7 mL centrifuge tube
AS-17151-03	5 mL cartridge	AS-17202-06	8-strip PCR tube (0.2 mL)
AS-17151-05	2 mL storage tube	AS-17202-07	15 mL wide-mouth plastic bottle
AS-TT-200-N	200 µL tip (transparent, boxed)	AS-17202-08	100 mL reservoir
AS-TT-1000-N	1000 µL tip (transparent, boxed)	AS-17202-09	Medical waste packaging bag
AS-TT-5000C-NL-LB	5000 µL conductive tip (conductive, SBS box, low adsorption)	AS-17202-10	4000 µL tip

Code	Product description	Specification
RS-HSCF0101	Nucleic acid extraction or purification reagents (1 mL)	10 T, 24 T, 50 T, 100 T
RS-HSCF0102	Nucleic acid extraction or purification reagents (2 mL)	24 T, 50 T
RS-HSCF0104	Nucleic acid extraction or purification reagents (4 mL)	24 T, 50 T

Auto-Pure 20A / 20B / 24D

Nucleic Acid Purification System

Auto-Pure series nucleic acid purification system extracts and purifies nucleic acids through magnetic bead method. After sample lysis, the released nucleic acid molecules are specifically adsorbed on the surface of magnetic beads. Through built-in magnetic rods for magnetic absorption, transfer, and washing, the nucleic acid molecules are finally dissolved in the eluent. Combined with different types of magnetic bead nucleic acid reagents, nucleic acid can be quickly extracted from samples such as animal and plant tissues, blood, body fluids, and criminal test bodies.



Auto-Pure 20A / 20B



Auto-Pure 24D

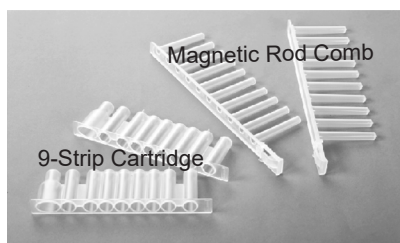
Features

- Single machine operation, 7-inch color touch screen display, easy to use.
- Customize temperature and program according to requirements to meet different reagent requirements.
- Short operation time, 15-40 min / time, and up to 20 / 24 samples can be extracted at the same time.
- High nucleic acid yield, low magnetic bead loss and good repeatability.
- UV sterilization function to reduce the pollution of samples between different batches.
- Open system, suitable for reagent extraction by various magnetic bead methods.
- Can monitor the system by APP in real time through mobile devices.
- Screw rod design, high operation accuracy; large guide rail design, small clearance, more stable structure.
- Drawer type sampling, convenient and safe.
- Open instrument parameter settings, which can be set independently: mixing speed, magnetic absorption, release, cooling fan and other functions.
- Auto-Pure 24D maximum processing volume is 10 mL.

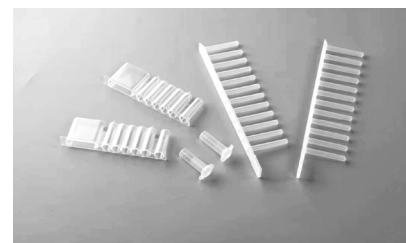
Modular Design



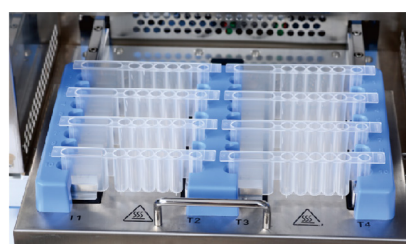
Auto-Pure 24D



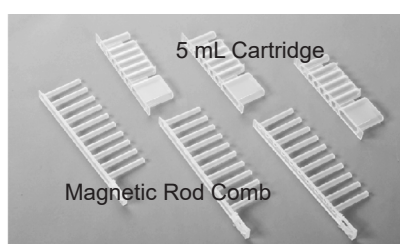
Auto-Pure 20A Consumables



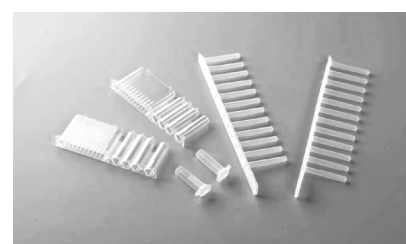
Auto-Pure 24D 5 mL Consumables



Auto-Pure 20B



Auto-Pure 20B Consumables

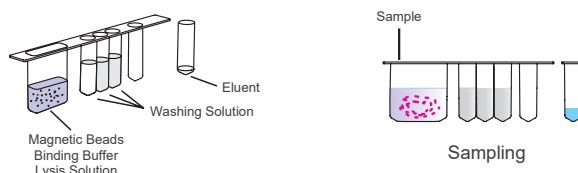


Auto-Pure 24D 10 mL Consumables

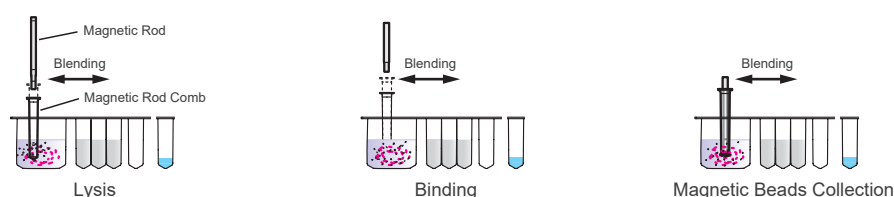
Working Principle and Steps of Nucleic Acid Extraction (Auto-Pure 24D)

Use the magnetic rod on the magnetic rod holder in the instrument to move the magnetic beads with nucleic acid into different reagent wells. Then use the mixing sleeve on the outer layer of the magnetic rod to repeatedly and rapidly mix the sample. Finally obtain purified nucleic acid after cell lysis, nucleic acid adsorption, washing and elution.

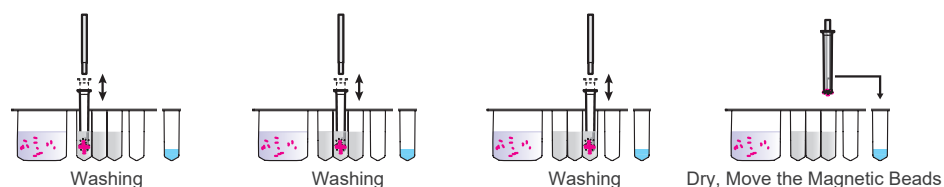
01 Sample



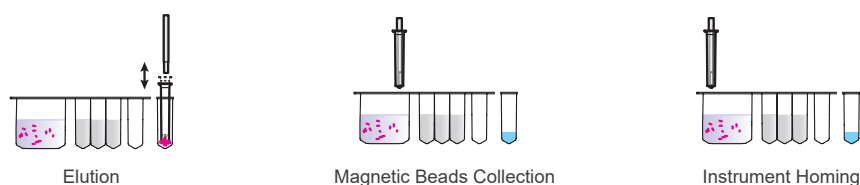
02 Lysis / Binding



03 Washing



04 Elution



01 Special Features for Auto-Pure 20A



- Patented design of 9-strip cartridges.
- 9-strip cartridges have two sample wells, the first sample well is 2 mL, and the second sample well is 1 mL. The user can choose any sample well as required.
- Process samples up to 3 mL and Max. sample volume is 1.2 mL.
- Reducing reagent waste and good for research use.

02 Special Features for Auto-Pure 20B / 24D



- Patented design for 5 mL cartridges.
- Reducing reagent waste.
- Large processing volume: Max. processing volumes of 20B and 24D are 5 mL and 10 mL, which improves detection sensitivity and meets various applications.
- Two Max. processing volumes for 24D, are suitable for 5 mL and 10 mL consumables.
- Patented design for line-mixing the sample, is good for NGS cfDNA extraction, nucleic acid library preparation, blood nucleic acid screening, nucleic acid hypersensitivity detection.

Supporting Instruments



SealBio-1 Automated Plate Heat Sealer

Used for rapid and continuous sealing of microplates. It can be adapted to ANSI, SBS standard 12-well, 24-well, 48-well, 96-well and 384-well plates with height range of 3~62 mm, including all kinds of PCR plates, ELISA plates, deep-well plates, cell culture plates, etc. It supports the use of 78 mm puncturable roll film, aluminum foil roll film and strong heat sealing roll film.

Please refer to P132 for details.



SealBio-2 Semi Automated Plate Sealer

Compact design, easy installation, through the heat seal of a variety of special heat seal film to prevent sample loss and cross-contamination caused by liquid evaporation and leakage in the detection process of various microplates. Fast heating, real-time display of sealing plate temperature, automatic detection of microplate height.

Please refer to P133 for details.



FCM-3 Film Cutting Machine

Specially designed for automatic cutting of cartridges after sealing in the Auto-Pure 20A / 20B / 24D, Auto-Pure 10B / 10BS, and Auto-Pure 2400 / 2400M series automatic nucleic acid extractors, it can complete the cutting of 5 cartridge sealing films in one run. By using a screw stepper motor to drive, the automatic film cutting process of nucleic acid cartridges is achieved. The sealed casing makes machine operation safer.

Please refer to P137 for details.



Adapter for Auto-Pure 20 Series Cartridges

- Auto-Pure 20A / Auto-Pure 20B adopts patented 9-strip cartridges, which can be separately packaged and separately used for nucleic acid extraction and purification to reduce reagent waste, especially suitable for scientific research institutions.
- The maximum processing volume of Auto-Pure 20B is 5 mL, and the maximum sample volume is 2 mL.

Specification

Model	Auto-Pure 20A	Auto-Pure 20B	Auto-Pure 24D
Throughput	1~20	1~20	1~24
Process volume	50~3000 μ L	50~5000 μ L	50~10000 μ L / 50~5000 μ L
Consumables	2 mL cartridge + magnetic rod comb	5 mL cartridge + magnetic rod comb	5 mL cartridge + magnetic rod comb
Working principle	Magnetic bead method, magnetic rod type / up and down mixing	Magnetic bead method, magnetic rod type / up and down mixing, left and right mixing	Magnetic bead method, magnetic rod type / up and down mixing, left and right mixing
Max. input power	450 W	450 W	450 W
Dimension (W×D×H)	40 cm×47 cm×45 cm	40 cm×52 cm×45 cm	40 cm×52 cm×45 cm
Weight	28 kg	30 kg	30 kg

Basic Parameter

Software security	Operating system encryption function can effectively prevent malicious tampering with parameters and programs
Purification accuracy	100 copy sample positive rate >95 %
Stability	CV <5 %
Collection efficiency	>95 %
Lysis temp.	RT. ~120 °C
Elution temp.	RT. ~120 °C
Mixing	Mixing ways can be editable
Operation interface	7-inch touch screen, 3 shortcut buttons and mouse is available
Built-in program	8 groups of preset programs, 100 groups of programs can be stored
Program management	New, edit, delete, save as
Expansion interface	Standard USB, ethernet port and WIFI are available
Lighting	Yes
Sterilization	UV light
Exhaust way	Fan
Data storage	Available, with built-in SD card

Ordering Information

Code	Product description
AS-17040-00	Auto-Pure 20A nucleic acid purification system
AS-17050-00	Auto-Pure 20B nucleic acid purification system
AS-17150-00	Auto-Pure 24D nucleic acid purification system
AS-17041-01	Cartridge for Auto-Pure 20A
AS-17041-02	Magnetic rod comb for Auto-Pure 20A / 20B
AS-17051-01	Cartridge for Auto-Pure 20B
AS-17151-01	10 mL cartridge for Auto-Pure 24D
AS-17151-02	Magnetic rod comb for Auto-Pure 24D
AS-17151-03	5 mL cartridge for Auto-Pure 24D
AS-17151-04	5 mL, 10 mL cartridge holder for Auto-Pure 24D
AS-17100-00	FCM-1 film cutting machine
AS-15020-00	SealBio-2 semi automated plate sealer
AS-15021-01	SBA-1 standard plater adapter
AS-15021-02	SBA-2 96-well PCR plate adapter
AS-15021-03	SBA-3 weighted sealing platen
AS-15021-04	Adapter for Auto-Pure 20 / 10 series cartridges
AS-15021-11	Seal-150 peelable clear seal
AS-15021-12	Seal-200 peelable seal for storage
AS-15021-13	Seal-300 pierce aluminum heating sealing film

Auto-Pure Mini

Nucleic Acid Purification System

Auto-Pure Mini nucleic acid purification system is featured with mini size and powerful function to meet the daily testing requirements of small labs. Supporting the use of cell phone APP to remote edit protocols, import and export data, check running log etc, make it much more convenient for users.



Features

01 Open Design, Free Editing Software

- Accurate temperature control of ambient +5 °C~120 °C.
- Easy to set program with open and humanized software.
- Powerful open software can match with different kinds of magnetic bead kits.
- Special single test strip mode makes single test much more cheaper.

02 Simple and Intelligent Operation

- Built-in lighting LED, real-time observation of the running status.
- Graphical interface design makes the operation easier.
- Create, edit and manage programs can be completed on one cell phone by APP.

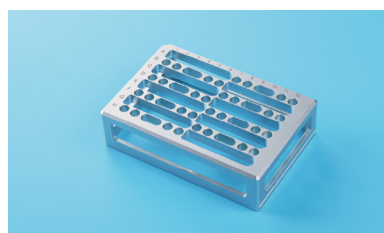
03 Field Experiment

- Special design of the instrument, small size, easy to carry.
- Intelligent energy-saving mode for reducing the power consumption of battery supply.
- External battery power supply, DC 24 V / 5 A can be available.

04 High-Quality Fast Extraction

- Up to 16 samples with max 1 mL / process volume per run.
- Equipped with lead screw drive to achieve high precision lifting movement.
- UV sterilization function to reduce the contamination of samples between different batches.

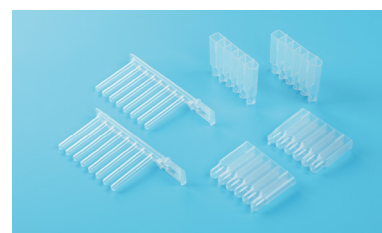
Consumables & Accessories



Holder for Single Tank



Single Sample Consumables



Consumables



Code Scanner



External Battery Power Supply

Specification

Throughput	1~16
Processing volume	50~1000 μ L
Consumable	8-tip comb 96 deepwell plate / single test strip
Principle / working mode	Magnetic beads absorption and separation
Stability	CV \leq 3 %
Magnetic bead recovery rate	>95 %
Lysis temperature	RT. \sim 120 $^{\circ}$ C
Elution temperature	RT. \sim 120 $^{\circ}$ C
Mixing	Mixing ways can be editable
Operation interface	4.3 touch screen, 3 shortcut keys and external mouse
Program	Preset 6 programs, max store 100 programs
Program management	New, edit, save as, delete
Port	Standard USB, Ethernet port, WiFi
Lighting	LED
Sterilization	Fan exhaustion, UV sterilization
Dimension	20 cm \times 26 cm \times 30 cm
Weight	7 kg

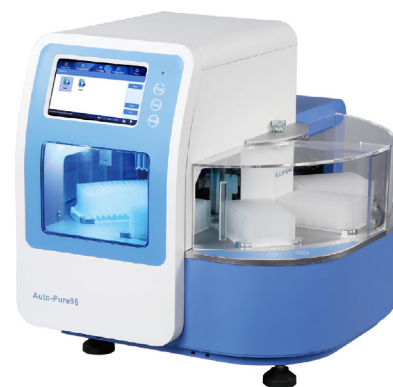
Ordering Information

Code	Product description
AS-17170-00	Auto-Pure Mini nucleic acid purification system
AS-17171-01	Single tank for Auto-Pure Mini
AS-17171-02	Holder for Auto-Pure Mini single tank
AS-17171-03	Code scanner for Auto-Pure Mini
AS-17171-04	DC power supply for Auto-Pure Mini
AS-17031-02	Magnetic rod comb for Auto-Pure S32 / 32A / 16A / Mini
AS-17061-02	96-Deepwell plate for Auto-Pure Mini

Auto-Pure 96 / 48 / 24

Nucleic Acid Purification System

Auto-Pure 96 / 48 / 24 nucleic acid purification system adopts magnetic bead separation technology, using 96×2.2 mL deepwell plate and 96 magnetic rod comb (1,000 μ L reaction system); 48×5 mL deepwell plate, 48 magnetic rod comb (3,000 μ L reaction system); 24×14 mL deepwell plate, 24 magnetic rod comb (10,000 μ L reaction system). Combined with different kinds of magnetic bead nucleic acid extraction kits, it can operate 1-96 samples, 1-48 samples or 1-24 samples simultaneously and extract DNA and RNA rapidly in 30-60 minutes.



Features

- **High throughput fast extraction, 1-96 or 1-48 or 1-24 samples can be extracted at the same time.**

- **7-inch color touch screen display, parameters and programs can be freely edited, and the kit can be freely matched.**

With Chinese and English operation interface, program editing can be realized without connecting to a computer. Flexible and simple operation can meet the needs of multiple sample extraction.

- **The instrument has 8 plate positions, and 2 plate positions can be used for heating and precise temperature control.**

Self-defined lysis and elution temperature, RT, +5 °C~120 °C temperature control, meet different lysis conditions of various samples. Customized service is provided for the instrument heating plates, which can be increased up to 4, and the shape of the heating plate can be adjusted according to the reagent kit to maximize the heating efficiency.

- **Open design, complete software functions.**

Diversified mixing and magnetic absorption methods provide more reliable methods for reagent manufacturers to optimize reagents.

- **Center rotary table design with small shape, stable operation, safe and reliable.**

- **Automatic detection in case kit missing.**

- **Automatic loading and unloading structure of magnetic rod tip comb, which guarantee stability and liability.**

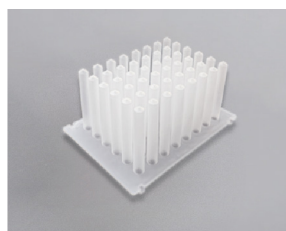
- **UV sterilization lamp function and pollution prevention control eliminate cross-contamination; built in LED, convenient for observing the instrument operation.**

- **At the end of program operation, the software has the function of generating reports to meet the experimental traceability.**

01 High Throughput, Fast Extraction and Modular Design Can Meet Variety of Needs by One Unit



Auto-Pure 96 Consumable



Auto-Pure 48 Consumable



Auto-Pure 24 Consumable

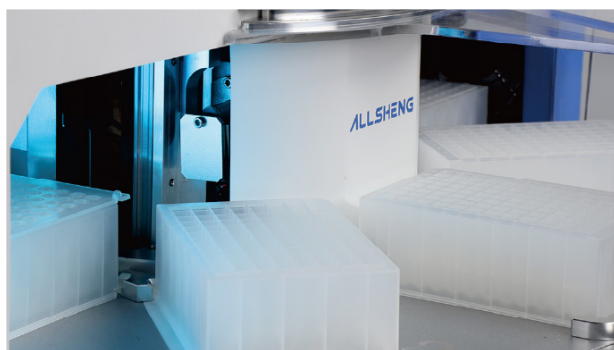


Auto-Pure 48 Consumable

02 Operational Advantages

- High-throughput:
Auto-Pure 96 can process 96x1 mL samples simultaneously
Auto-Pure 48 can process 48x3 mL samples simultaneously
Auto-Pure 24 can process 24x10 mL samples simultaneously
- Open and multiple functions design can be provided more methods for reagent optimization, and also a reliable choice.
Touchscreen interface and easy operation, parameters can be tuned based on experimental requirements.
- Accurate temperature control system ensures stability of purification performance.
- Patent structure design with center rotary table which makes it occupies smaller area.
- Patent design for automatic loading and unloading structure of magnetic rod tip comb, which guaranteed stability and liability (success rate >99.99%).

04 Antipollution Measures



- Avoid reagent splashing through drip shield plate and beads dried way controlled by software.
- Disposable consumables which can avoid cross-contamination.

05 Simple and Intelligent Operation



Auto-Pure 96 / 48 / 24 the front door can be opened

- Front door can be opened, you can stop it at any moment, which is very convenient for reagent optimization and experimental status viewing.
- Start with self-check, equipped with power-off protection.
- 8-plate identification design guaranteed their target position, even though external forces exist.
- Automatic detection in case kit missing.

06 Compatible with Automated Systems (Optional)

- Auto-Pure 96 / 48 / 24 can be used with automatic equipment, including mechanical arm, liquid processing system, etc., which meet the demand of high-flux experiment.

Specification

Model	Auto-Pure 96	Auto-Pure 48	Auto-Pure 24
Throughput	1~96	1~48	1~24
Process volume	50~1000 μ L	50~3000 μ L	50~10000 μ L
Consumables	96-deep well plate + 96 magnetic rod comb	3 mL cartridge + magnetic rod comb	10 mL cartridge + magnetic rod comb

Specification

Working principle	Magnetic bead method, magnetic rod type / center rotary table
Software security	Operating system encryption function can effectively prevent malicious tampering with parameters and programs
Purification accuracy	100 copy sample positive rate >95 %
Stability	CV <5 %
Collection efficiency	>95 %
Lysis temp.	RT. ~120 °C
Elution temp.	RT. ~120 °C
Mixing	Mixing ways can be editable
Operation interface	7-inch touch screen, 3 shortcut buttons and mouse is available
Built-in program	8 groups of preset programs, 100 groups of programs can be stored
Program management	New, edit, delete, save as
Expansion interface	Standard USB
Lighting	Yes
Sterilization	UV light
Exhaust way	Fan
Data storage	Available, with built-in SD card
Max. input power	300 W
Dimension (W×D×H)	56 cm×62 cm×50 cm
Weight	54 kg

Ordering Information

Code	Product description	Code	Product description
AS-17060-00	Auto-Pure 96 nucleic acid purification system	AS-17061-03	96-elution plate for Auto-Pure 96
AS-17070-00	Auto-Pure 24 nucleic acid purification system	AS-17071-01	Magnetic tip comb for Auto-Pure 24
AS-17080-00	Auto-Pure 48 nucleic acid purification system	AS-17071-02	24 x 14.6 mL plate for Auto-Pure 24
AS-17061-01	Magnetic tip comb for Auto-Pure 96	AS-17081-01	Magnetic tip comb for Auto-Pure 48
AS-17061-02	96-deepwell plate for Auto-Pure 96	AS-17081-02	48-well plate for Auto-Pure 48

Auto-Pure S32

Nucleic Acid Purification System

Auto-Pure S32 is a device for nucleic acid extraction and purification based on magnetic bead method. It can be used for fully automatic extraction and purification of DNA, RNA and protein. Through the adsorption, transfer and release of magnetic beads by magnetic rods and magnetic rod combs, the transfer of magnetic beads / samples is realized, and the automatic extraction and purification operation is completed. The operation is automated, fast and easy. Using special kits or 96-well plates, 1 to 32 samples can be processed at the same time. With different types of magnetic bead and nucleic acid extraction reagents, rapid extraction of animal, plant tissue, blood and other body fluid samples can be achieved. It is mainly used for the extraction and purification of nucleic acid from human samples.



Features

01 Humanized Operating System

- Chinese and English interface operation, touch screen operation, and external mouse, easy to use.
- Built-in lighting LED for real-time observation of operating status.
- Short operation time, with different reagents, the general extraction time is 10~60 minutes / time.
- Support external scanner, automatically identify program / sample and other information after scanning.

02 Open Design, Flexible Extraction

- 1-32×1 mL samples can be extracted in one run.
- Realize lysis heating and elution heating.
- The mixing speed of 1-10 gears can be set flexibly, and the methods are more diverse.

03 Stable Operation, Safe and Reliable

- The instrument runs quietly and the whole machine has no vibration.
- Automatic reagents and disposable consumables reduce operator exposure to harmful reagents.
- Select high-quality materials and processes, low loss of magnetic beads, high yield.
- Built-in UV sterilization function reduces the risk of contamination.

04 Intelligent and Diverse Network System

- Network control----extensible Ethernet remote control, WiFi function.
- APP software----can expand the Android tablet computer, mobile phone monitoring system.
- Expanded functions----IOT to achieve efficient background management.

Consumables



96-Deepwell Plate



Magnetic Rod Comb

Specification

Model	Auto-Pure S32
Principle	Magnetic bead method
Throughput	1-32
Plate type	96 deepwell plate
Process volume	30-1000 μ L
Stability	CV \leq 5 %
Heating for lysis tube	RT. \sim 120 $^{\circ}$ C
Heating for elution tube	RT. \sim 120 $^{\circ}$ C
Heating time	RT. \sim 120 $^{\circ}$ C \leq 4 min
Cooling time	100 $^{\circ}$ C \sim 40 $^{\circ}$ C \leq 10 min (RT. 25 $^{\circ}$ C)
Temperature accuracy	\pm 0.5 $^{\circ}$ C
Temperature uniformity	At 100 $^{\circ}$ C, \pm 1 $^{\circ}$ C
Mixing	1-10 gear can be set
Operation interface	7 inch color large touch screen
Internal program	Up to 500 programs can be stored
Instrument interface	2 USB (dual A type), 1 USB (B type), 1 Ethernet port
Network	Reserved 4G network
Barcode scanning	Automatically identify program / sample and other information
Sterilization	UV sterilization
Purification filter	Equipped with a purification filter system to reduce cross-contamination such as aerosols
Power supply	AC 110-240 V, 50 / 60 Hz, 450 VA
Dimension (W×D×H)	417×410×426 mm
Weight	20 kg

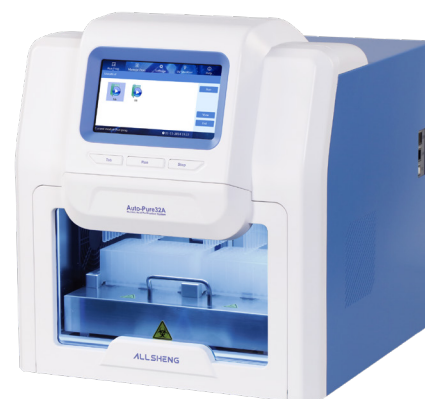
Ordering Information

Code	Product description
AS-17180-00	Auto-Pure S32 nucleic acid purification system
AS-17061-02	96-deepwell plate for Auto-Pure S32
AS-17031-02	Magnetic rod comb for Auto-Pure S32 / 32A / 16A / Mini

Auto-Pure 32A

Nucleic Acid Purification System

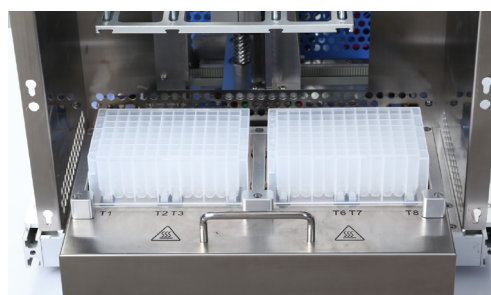
Auto-Pure 32A nucleic acid purification system is a device for extracting and purifying nucleic acid by magnetic bead method. It has the advantages of high automation, fast extraction speed, stable results and simple operation. Using 96 deepwell plate, 1-32 samples can be purified simultaneously. DNA and RNA in animal and plant tissues, blood, body fluids and criminal samples can be extracted quickly with different kinds of magnetic bead nucleic acid reagents. It is widely used in scientific research, disease control system, food safety, forensic medicine, clinical monitoring and other fields.



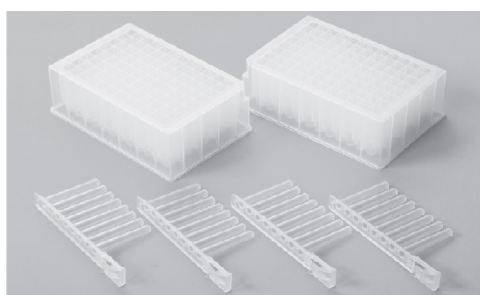
Features

- Purification of 32 samples in one run.
- Drawer type sampling, convenient and safe.
- Screw rod design, higher operation accuracy.
- Open system, suitable for various magnetic bead extraction reagents.
- Large guide rail design, small clearance, more stable structure.
- UV lamp to avoid cross-contamination.

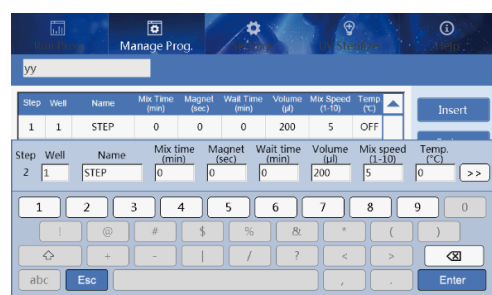
Consumables and Software



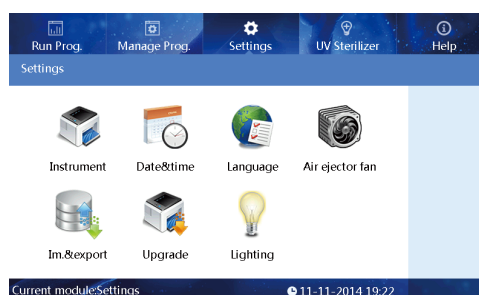
Convenient Drawer Sampling



Auto-Pure 32A Consumables



Program Management



Software Interface

Specification

Model	Auto-Pure 32A
Throughput	1~32
Process volume	50~1000 µL
Consumables	96 deepwell plate + magnetic rod comb
Working principle	Magnetic bead method, magnetic rod type / up and down mixing
Software security	Operating system encryption function can effectively prevent malicious tampering with parameters and programs
Purification accuracy	100 copy sample positive rate >95 %
Stability	CV <5 %
Collection efficiency	>95 %
Lysis temp.	RT. ~120 °C
Elution temp.	RT. ~120 °C
Mixing	Mixing ways can be editable
Operation interface	7-inch touch screen, 3 shortcut buttons and mouse is available
Built-in program	8 groups of preset programs, 100 groups of programs can be stored
Program management	New, edit, delete, save as
Expansion interface	Standard USB, ethernet port and WIFI are available
Lighting	Yes
Sterilization	UV light
Exhaust way	Fan
Data storage	Available, with built-in SD card
Max. input power	450 W
Dimension (W×D×H)	40 cm×47 cm×45 cm
Weight	28 kg

Ordering Information

Code	Product description
AS-17030-00	Auto-Pure 32A nucleic acid purification system
AS-17031-01	96-deepwell plate for Auto-Pure 32A / 16A
AS-17031-02	Magnetic rod comb for Auto-Pure S32 / 32A / 16A / Mini

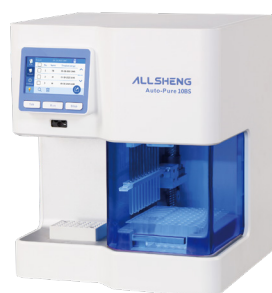
Auto-Pure 10B / 10BS / 16A

Nucleic Acid Purification System

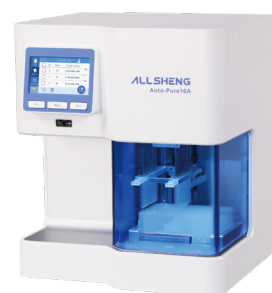
Auto-Pure 10B series / Auto-Pure 16A is a miniaturized nucleic acid extraction and purification instrument adopting magnetic bead method, which is developed on the basis of Auto-Pure 20B and Auto-Pure 32A. Auto-Pure 10B series can extract 10 samples in one run, maximum sample volume is 5 mL, and is with heating functions for lysis well and elution well. Auto-Pure 10BS can extract 10 samples in one run, maximum sample volume is 5 mL. It integrates dry bath heating function, and the extracted template can be subject to subsequent processing such as isothermal amplification reaction, which is convenient for on-site extraction and detection of results. Based on Auto Pure 32A, Auto-Pure 16A reduces the maximum sample volume. Auto-Pure 16A can extract 16 samples in one run, maximum sample volume is 1 mL. With different types of magnetic bead nucleic acid reagents, it can quickly extract nucleic acids from animal and plant tissues, blood, body fluids, criminal specimens and other samples.



Auto-Pure 10B



Auto-Pure 10BS

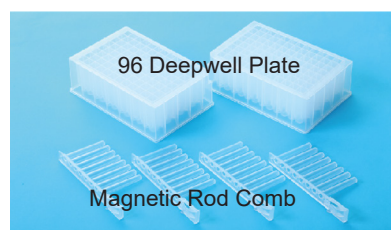


Auto-Pure 16A

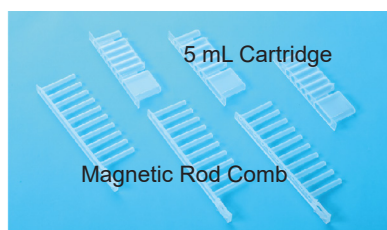
Features

- 4.3 inch touch screen, easy to use.
- Temperature and programs can be edited and saved according to different reagent requirement.
- Short operation time: 15~40 min per run.
- High yield of nucleic acid with low magnetic bead loss and good repeatability of results.
- UV sterilization, avoid cross-contamination.
- Open system which can apply to different magnetic bead extraction reagent.
- Can monitor the system by APP in real time through mobile devices.
- With PC software and APP, edit, set and manage programs more easily.
- Screw rod design which guarantee high operating accuracy; large guide rail design makes the structure more reliable.
- With QR code identification function, special reagent can be recognized, no need to program or obtain protocols.
- Open instrument parameters can be set by itself: mixing speed, magnetic absorption and release, cooling fan and other functions.
- Small volume, suitable for extraction on site.

Consumables



Auto-Pure 16A Consumables



Auto-Pure 10B / 10BS Consumables

Specification

Model	Auto-Pure 10B	Auto-Pure 10BS	Auto-Pure 16A
Throughput	1~10	1~10	1~16
Process volume	50~5000 µL	50~5000 µL	50~1000 µL
Consumables	5 mL cartridge + magnetic rod comb	5 mL cartridge + magnetic rod comb	96 deepwell plate + magnetic rod comb
Block heating	/	Yes (RT. +5 °C~105 °C)	/
Max. input power	300 W	350 W	300 W
Weight	18 kg	18.5 kg	18 kg




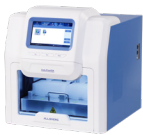




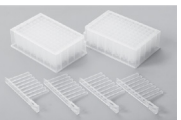

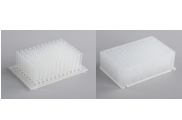

Lysis temp.	RT. ~120 °C
Elution temp.	RT. ~120 °C
Dimension (W×D×H)	340 mm×350 mm×410 mm
Stability	CV <5 %
Collection efficiency	>95 %
Mixing	Mixing ways can be editable
Operation interface	4.3 inch touch screen, 3 shortcut keys, external mouse
Built-in program	6 groups of preset programs, 100 groups of programs can be stored
Program management	PC software, APP software, easier program editing and management
Extension interface	Standard USB, ethernet port and WIFI are available
Lighting	Yes
Sterilization	UV light
Exhaust way	Fan
Data storage	Built-in SD card

Ordering Information



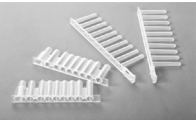
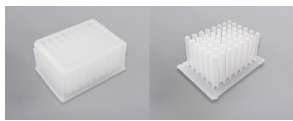
Code	Product description
AS-17110-00	Auto-Pure 10B nucleic acid purification system
AS-17130-00	Auto-Pure 10BS nucleic acid purification system
AS-17140-00	Auto-Pure 16A nucleic acid purification system
AS-17031-01	96-deepwell plate for Auto-Pure 32A / 16A
AS-17031-02	Magnetic rod comb for Auto-Pure S32 / 32A / 16A / Mini
AS-17041-02	Magnetic rod comb for Auto-Pure 10B / 10BS
AS-17051-01	Cartridge for Auto-Pure 10B / 10BS

Automatic Nucleic Acid Extraction System Series - Selection Guide



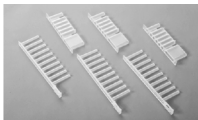
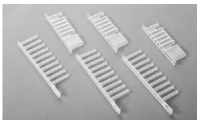
Nucleic Acid Extraction Reaction System - 1 mL

						
Model	Auto-Pure Mini	Auto-Pure 16A	Auto-Pure S32	Auto-Pure 32A	Auto-Pure 96	Auto-Pure 4800
Throughput	16	16	32	32	96	48
Extraction cartridge applicability	Pre-packaged	Pre-packaged	Pre-packaged	Pre-packaged	Pre-packaged	Pre-packaged / no need for pre-packaged
Extraction method	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction
Integrated function	Nucleic acid extraction	Nucleic acid extraction	Nucleic acid extraction	Nucleic acid extraction	Nucleic acid extraction	Automatic sampling + nucleic acid extraction + PCR set-up
Pipetting function	No	No	No	No	No	Pipetting function
Operation method	4.3-inch touch screen	4.3-inch touch screen	7-inch touch screen	7-inch touch screen	7-inch touch screen	PC
Consumable						
Dimension (mm)	200×260×300	340×350×410	417×410×426	400×470×450	560×620×500	1090×695×724
Weight (kg)	7	18	20	28	54	130



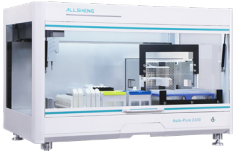
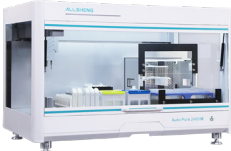
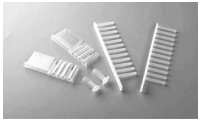

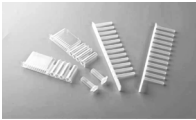
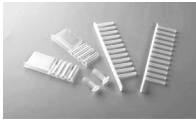
Nucleic Acid Extraction Reaction System - 3 mL

		
Model	Auto-Pure 20A	Auto-Pure 48
Throughput	20	48
Extraction cartridge applicability	Pre-packaged	Pre-packaged
Extraction method	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction
Integrated function	Nucleic acid extraction	Nucleic acid extraction
Pipetting function	No	No
Operation method	7-inch touch screen	7-inch touch screen
Consumable		
Dimension (mm)	400×470×450	560×620×500
Weight (kg)	28	54




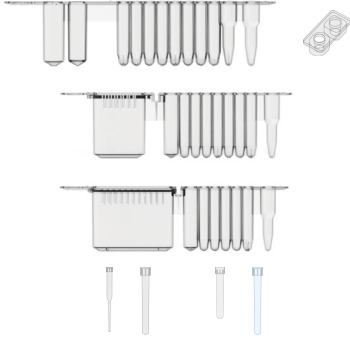
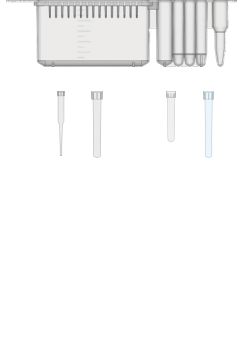
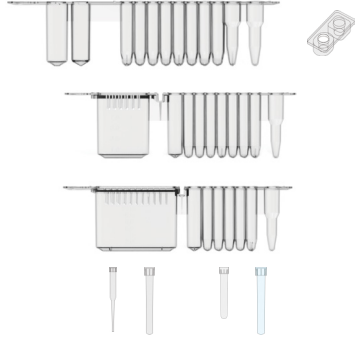
Nucleic Acid Extraction Reaction System - 5 mL

		
Model	Auto-Pure 10B / 10BS	Auto-Pure 20B
Throughput	10	20
Extraction cartridge applicability	Pre-packaged	Pre-packaged
Extraction method	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction
Integrated function	Nucleic acid extraction	Nucleic acid extraction
Pipetting function	No	No
Operation method	4.3-inch touch screen	7-inch touch screen
Consumable		
Dimension (mm)	340×350×410	400×470×450
Weight (kg)	18 / 18.5	28

Nucleic Acid Extraction Reaction System - 10 mL

				
Model	Auto-Pure 24D	Auto-Pure 24	Auto-Pure 2400	Auto-Pure 2400M
Throughput	24	24	24	24
Extraction cartridge applicability	Pre-packaged	Pre-packaged	Pre-packaged / no need for pre-packaged	Pre-packaged / no need for pre-packaged
Extraction method	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction
Integrated function	Nucleic acid extraction	Nucleic acid extraction	Automatic sampling + nucleic acid extraction + PCR set-up	Automatic sampling + nucleic acid extraction + methylation transformation + PCR set-up
Pipetting function	No	No	Pipetting function	Pipetting function
Operation method	7-inch touch screen	7-inch touch screen	PC	PC
Consumable				
Dimension (mm)	400×520×450	560×620×500	1090×695×724	1090×695×724
Weight (kg)	30	54	130	130

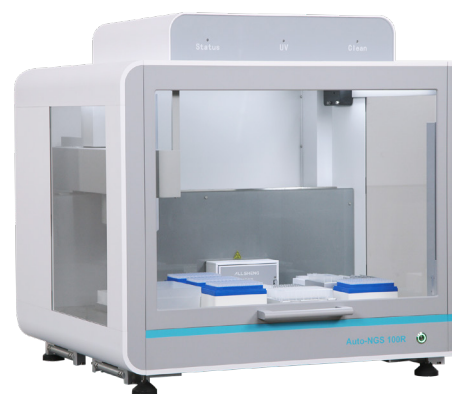
New Generation Nucleic Acid Purification System Series

			
Model	Leap-Pure S24	Leap-Pure H24	Leap-Pure R16
Throughput	24	24	16
Reaction system	FFPE 2 mL cartridge	/	FFPE 2 mL cartridge
	8 mL cartridge	/	8 mL cartridge
	15 mL cartridge	/	15 mL cartridge
	/	20 mL cartridge	/
Extraction cartridge applicability	Pre-packaged	Pre-packaged	Pre-packaged
Extraction method	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction	Magnetic rod / magnetic rod comb extraction
Integrated function	Nucleic acid extraction	Nucleic acid extraction	Nucleic acid extraction
Pipetting function	No	No	No
Operation method	10.1-inch touch screen	10.1-inch touch screen	10.1-inch touch screen
Consumable			
Dimension (mm)	740×640×586	740×640×586	740×640×623
Weight (kg)	85	85	105

Auto-NGS 100R

Automated NGS Library Preparation Workstation

Allsheng basic automated NGS library preparation workstation can achieve all processes in the library preparation process except for quality control. Due to the instrument built-in high-performance PCR amplification block, it can complete the amplification process without interruption. Comprehensive functions, precise pipetting, and easy-to-use software help you achieve better library quality.



Features

01 Intelligent & Visual

- Allow users to freely choose running part or all of the experimental processes.
- Program setting error reporting and prompt functions ensure that users can quickly find programming errors.
- TIP area prompts the experimental demand, current available amount and whether it is sufficient to ensure the smooth progress of the experiment.
- The PC simulation operation experiment function can enable users to find problems at any time and avoid wasting samples, reagents and time.

02 Precise Pipetting

- The self-developed high-precision 8-channel pipettor can be used as a single channel.
- A variety of liquid parameters setting ensure accurate control of liquid aspirating and dispensing process.

03 Flexible Matching Experiment Needs

- Multi-level account management system supports the different needs of new users and advanced users.
- Drag-and-drop flows simplifies program setting.
- GUI is easy to understand and edit.
- New users can also quickly master the operation methods of library preparation.

04 Efficient Pollution Prevention

- Equipped with efficient purification and filter system (negative pressure HEPA system) and UV sterilization to prevent cross-contamination of the experimental cabin.
- The PCR block in Auto-NGS 100R can use disposable automatic cover or conventional sealing cover to avoid condensation on the top and reduce the risk of cross-infection.

The experimental process that Auto-NGS 100R can achieve

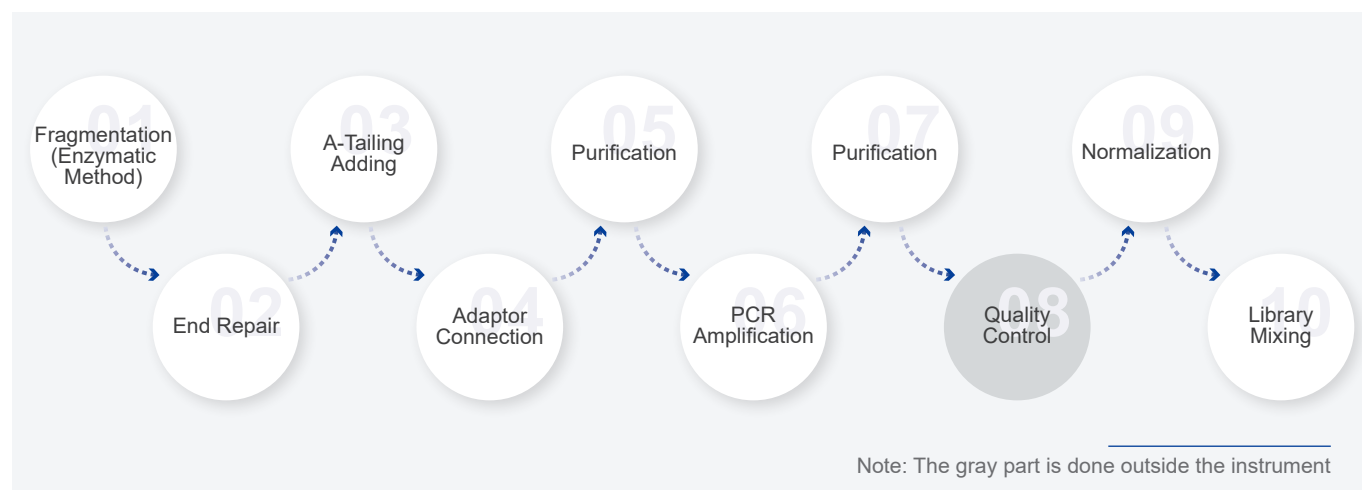
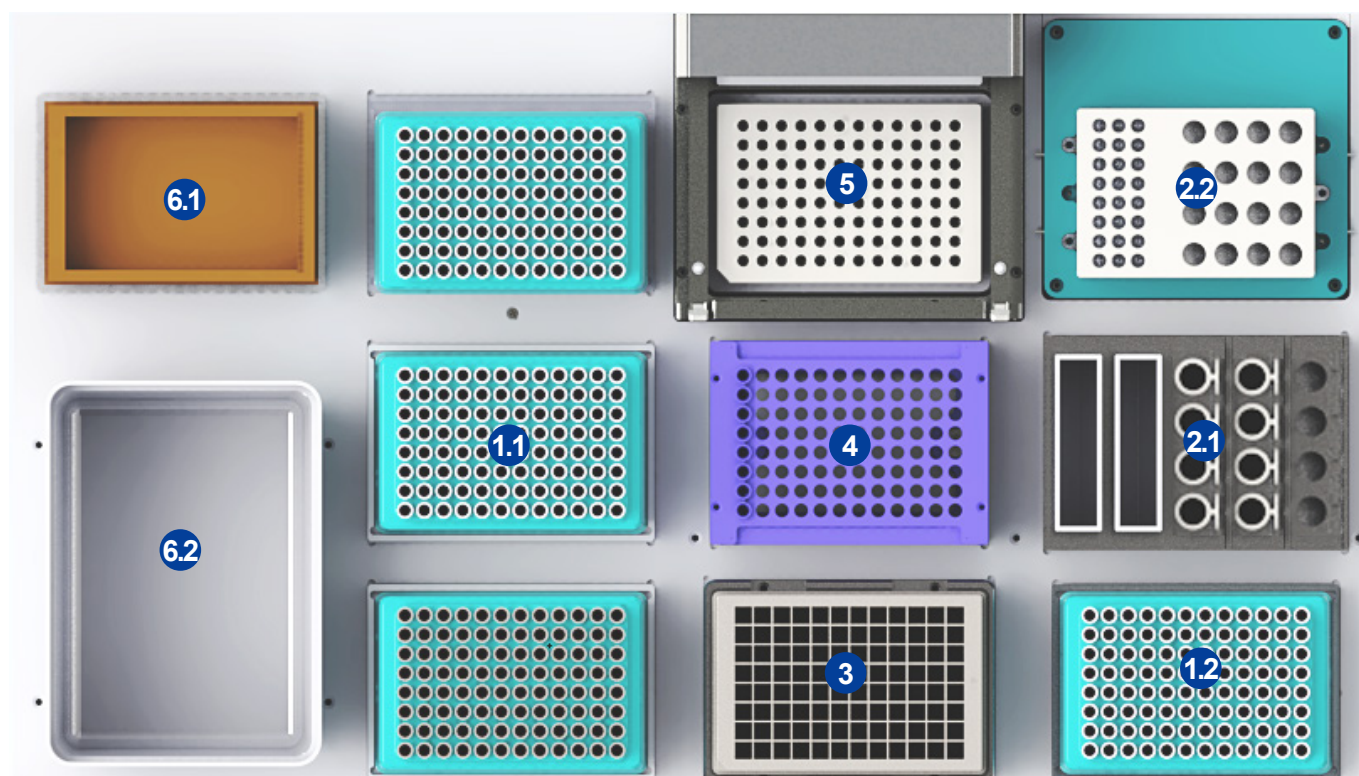


Plate Layout



1 Tip Area

1.1 200 μ L / 50 μ L TIP holders.

1.2 Two specifications of TIP can be combined into one plate for single channel pipetting.

2 Reagent Area

2.1 Normal temperature area: 2 \times 60 mL storage tank + 12 \times 2.0 mL / 1.5 mL centrifuge tube.

2.2 Temperature control area: 3 \times 8 \times 0.2 mL PCR tube + 16 \times 2.0 mL centrifuge tube; temperature control range: 4~105 $^{\circ}$ C.

3 Magnetic Area

The bottom 96-well magnetic area can closely fit with the 2.0 mL / 1.0 mL 96-well plate, and use rising and falling function of the magnetic area to achieve the combination and separation with the magnetic beads.

4 Sample Area

Equipped with a normal sample rack, which can place 8-strip PCR tubes; the corresponding sample rack can also be selected according to the type of sample tube.

5 Thermal Cycling Area

It is mainly used for PCR amplification step in the process of library preparation, and can be placed PCR consumables such as 96 \times 0.1 mL full-skirted tubes.

6 Waste Area

6.1 300 mL waste liquid container.

6.2 TIP off box.

Both the waste liquid container and TIP off box are freely accessible.

Specification

Model	Auto-NGS 100R
Throughput	1-24
Tiles number	11
Pipettor	Specification: 200 µL; 8-channel (can be used as a single channel) Minimum detection volume: 20 µL
Pipetting range	1-200 µL
Pipetting precision (CV)	1 µL: ≤5 % 20 µL: ≤2 % 100 µL: ≤1 % 200 µL: ≤1 %
Pipetting accuracy (A)	1 µL: ±8 % 20 µL: ±2 % 100 µL: ±1 % 200 µL: ±1 %
Temperature control block	Including 1 temperature control block Temperature control range: 4~105 °C Temperature control accuracy: ≤1 °C Temperature control uniformity: ≤1 °C @55 °C
Thermal cycling block	Temperature control range: thermo lid: 30 °C~120 °C; block: 4 °C~99 °C Uniformity: ≤0.7 °C Accuracy: ≤±0.3 °C
Magnetic plate	Lift type 96-well annular magnetic plate
UV sterilization	Equipped with UV sterilization lamp, HEPA device
Instrument port	USB port
Information management	External scanner for entering sample / reagent information Expandable LIS system connection Expandable cloud database connection
Operating environment	Temperature requirement: 20±5 °C Relative humidity: ≤80 %
Weight	115 kg
Power supply	100~240 V, 50 / 60 Hz, rated power 1200 W

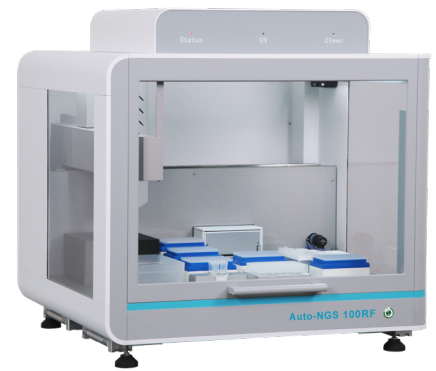
Ordering Information

Code	Product description
AS-27030-00	Auto-NGS 100R automated NGS library preparation workstation

Auto-NGS 100RF

Automated NGS Library Preparation Workstation

Based on Auto-NGS 100R, Auto-NGS 100RF has added a fluorometer to meet the quality control requirements during the library preparation process, truly realizing the automated process of sample-to-library. Auto-NGS 100RF plate has a more compact structure and diverse functions, making it the preferred platform for medium to low throughput library preparation.



01 Comprehensive Functions Meet the Requirements of the Whole Process of Basic Library Preparation

- Its function is consistent with Auto-NGS 100R.
- Built-in fluorometer block meets the concentration measurement requirements in the process.

02 8-Well Fluorometer Block

- Can detect 8 samples in one run.
- The lowest detection limit down to 0.4 ng.
- Accurate sample concentration with only 2 μ L samples.

03 Special Consumables Meet Automation Needs

- The room temperature reagent area adopts an 8-strip design, which facilitates rapid reagent dispensing.
- Can place Allsheng PCR tube cap, combined with a pipettor to quickly transfer fluorescent detection cartridge.
- Can place Allsheng 3 \times 8 \times 0.6 mL special consumables for storing small and medium-sized liquids.

The experimental process that Auto-NGS 100RF can achieve

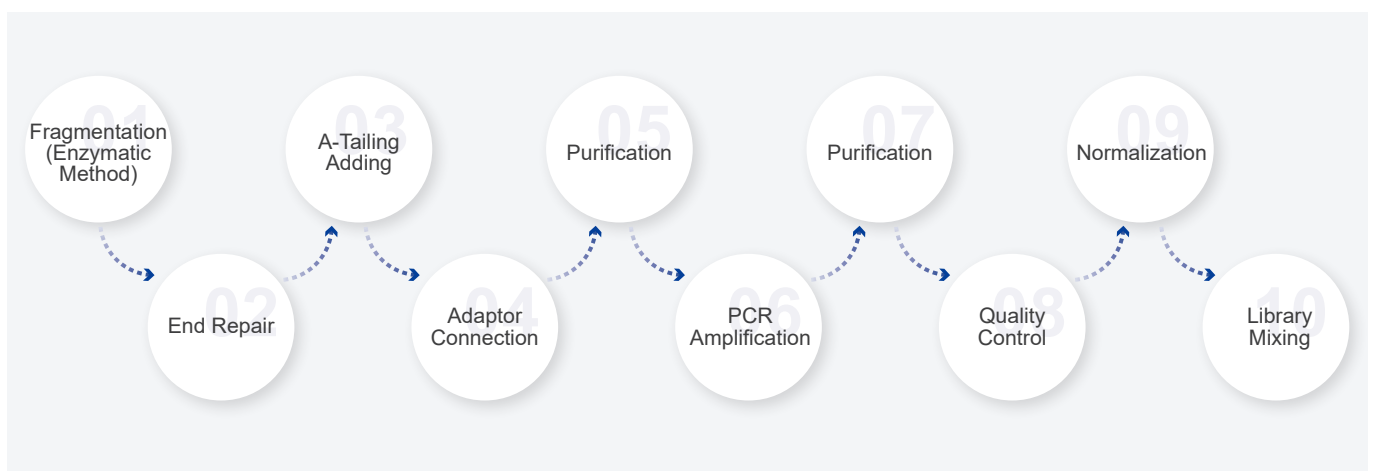
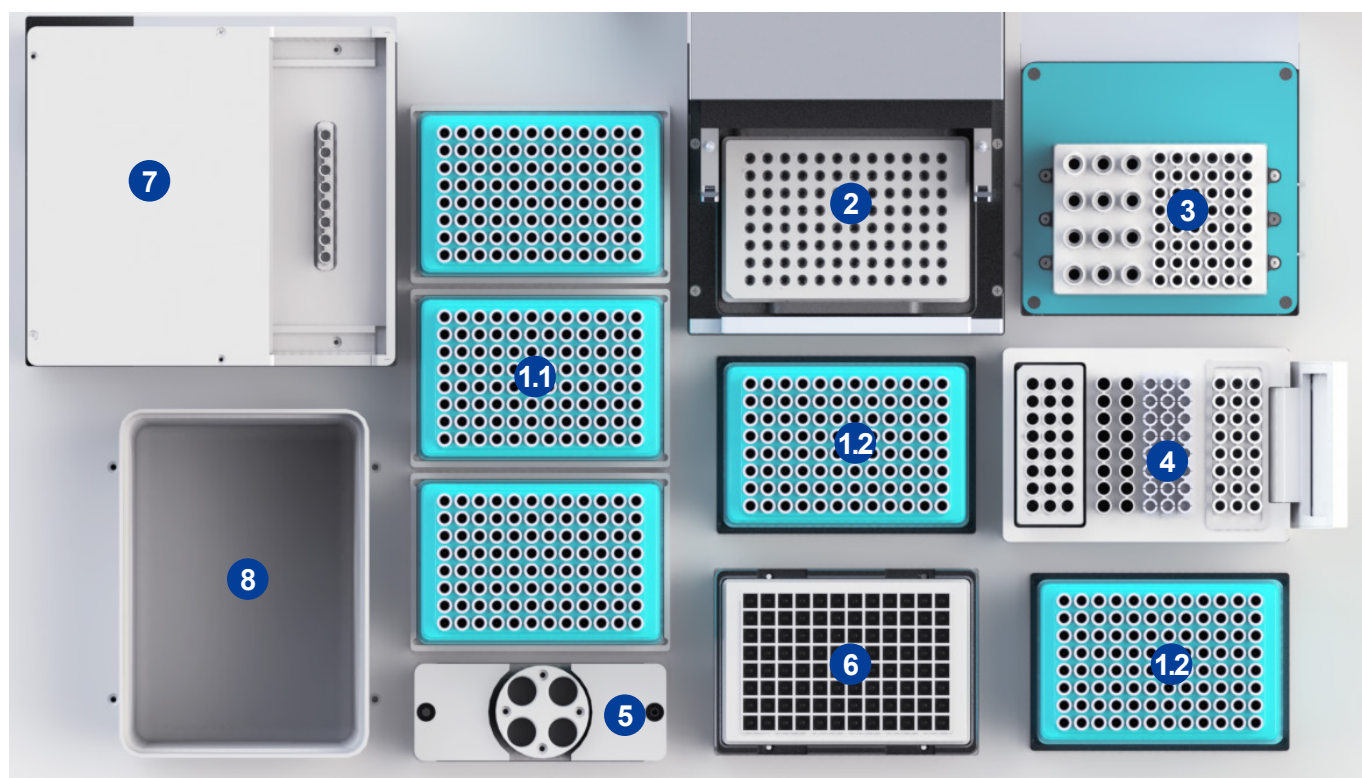


Plate Layout



① Tip Area

1.1 200 μ L / 50 μ L TIP holders, supporting simultaneous use of 8-channel pipettor.

1.2 200 μ L / 50 μ L TIP holders, mainly used for single channel and X-channel pipettor.

② PCR Block

Mainly used for the PCR amplification step during the library preparation process. Can place 96 \times 0.1 mL full-skirted PCR consumables.

③ Temp. Control Block

Temperature control range: 4~105 $^{\circ}$ C, can store reagents with refrigeration needs.

12 \times 1.5 / 2.0 mL frozen storage tube+6 \times 8 \times 0.2 mL PCR tube, and customization is available.

④ Reagent Area

Used for storage of room temperature reagents. 24 \times 0.6 mL (special consumables)+2 \times 8 \times 1.1 mL deepwell tube+3 \times 8 PCR cap (special consumables)+3 \times 8 \times 0.2 mL PCR tube. The block area has an automatic flip function to store fluorescent reagents in a dark place.

⑤ Magnetic Bead Mixer

Used for mixing magnetic beads.
4 \times 5 mL centrifuge tube.

⑥ Magnetic Area

The bottom 96-well magnetic area can closely fit with the 2.0 mL / 1.0 mL 96-well plate, and use rising and falling function of the magnetic area to achieve the combination and separation with the magnetic beads.

⑦ Fluorometer

The quality control block can simultaneously detect 8 samples, requiring 2 μ L of samples to obtain accurate sample concentrations, with the minimum detection limit down to 0.4 ng (dsDNA).

⑧ Waste Area

TIP off box; the waste liquid container is freely accessible.

Specification

Model	Auto-NGS 100RF
Throughput	1-24
Tiles number	12
Pipettor	Specification: 200 µL; 8-channel (can be used as a single channel) Minimum detection volume: 20 µL
Pipetting range	1-200 µL
Pipetting precision (CV)	1 µL: ≤5 % 20 µL: ≤2 % 100 µL: ≤1 % 200 µL: ≤1 %
Pipetting accuracy (A)	1 µL: ±8 % 20 µL: ±2 % 100 µL: ±1 % 200 µL: ±1 %
Temperature control block	Including 1 temperature control block Temperature control range: 4~105 °C Temperature control accuracy: ≤1 °C Temperature control uniformity: ≤1 °C @55 °C
Thermal cycling block	Temperature control range: thermo lid: 30 °C~120 °C; block: 4 °C~99 °C Uniformity: ≤0.7 °C Accuracy: ≤±0.3 °C
Fluorescence detection throughput	8
Fluorescence detection range	0.4 ng-100 ng
Magnetic bead shaking block	Yes
Magnetic plate	Lift type 96-well annular magnetic plate
UV sterilization	Equipped with UV sterilization lamp, HEPA device
Instrument port	USB port
Information management	External scanner for entering sample / reagent information Expandable LIS system connection Expandable cloud database connection
Operating environment	Temperature requirement: 20±5 °C Relative humidity: ≤80 %
Weight	130 kg
Power supply	100~240 V, 50 / 60 Hz, rated power 1200 W

Ordering Information

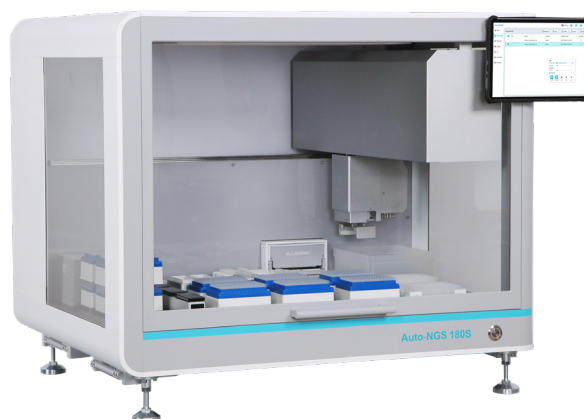
Code	Product description
AS-27050-00	Auto-NGS 100RF automated NGS library preparation workstation

Auto-NGS 180S

Automated NGS Library Preparation Workstation

A full-featured and compact automated NGS library preparation workstation can meet the needs of library preparation, quantitation, multiple targeting and hybrid capture only one time. The instrument is equipped with a 24-well fluorometer and PCR amplification block, truly achieving convenient operation of sample-to-library, without manual intervention throughout the whole process.

The design of 22 standard plates of the instrument, combined with grippers and plate stacking function, can meet the relatively simple library preparation requirements of 96 samples, as well as the fully automated library preparation and hybrid capture requirements of 16 sample simplification types.



24-Channel Pipettor



Pipettor and Gripper



24-Well Fluorometer Block

Features

01 24-Channel Pipettor

- Can be used as a single channel, 8-channel, 16-channel, 24-channel, or any channel, with a pipetting range of 1~200 μL .
- Can be adapted to 20 μL , 50 μL and 200 μL pipetting tips, 1 μL pipetting CV $\leq 6\%$, meeting the requirements of high-precision NGS experimental process.

02 Simplified Design, 2-in-1 Pipettor and Gripper

- The pipettor and gripper are designed in one, achieving dual functions while reducing additional mechanical structures.
- Realizing the transfer of well plate between plate positions can effectively reduce liquid loss compared to pipetting using a pipettor.
- With the plate stacking function, new and waste plates are planned and managed uniformly under the same experimental process, reducing manual intervention.

03 Stackable Design of Consumables

- Partial area consumables adopt stackable design, effectively expanding the number of tips.
- In the later stage, Allsheng robots can collaborate to achieve tip replenishment and increase sample throughput during the process.

04 24-Well Fluorometer Block

- Can detect 24 samples in one run simultaneously. With corresponding consumables, it can detect the sample concentrations of up to 72 samples in one run.
- Accurate sample concentration with only 2 μL samples, with the minimum detection limit of 0.4 ng.

In the later stage, can be used in conjunction with Allsheng collaborative robots, it can achieve continuous library preparation for 48 samples in one run

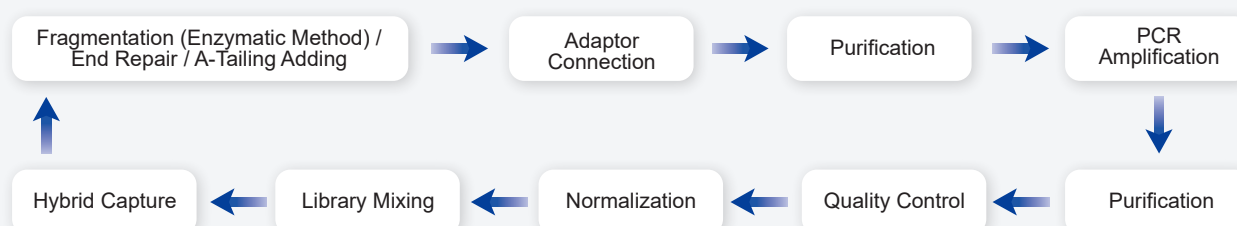
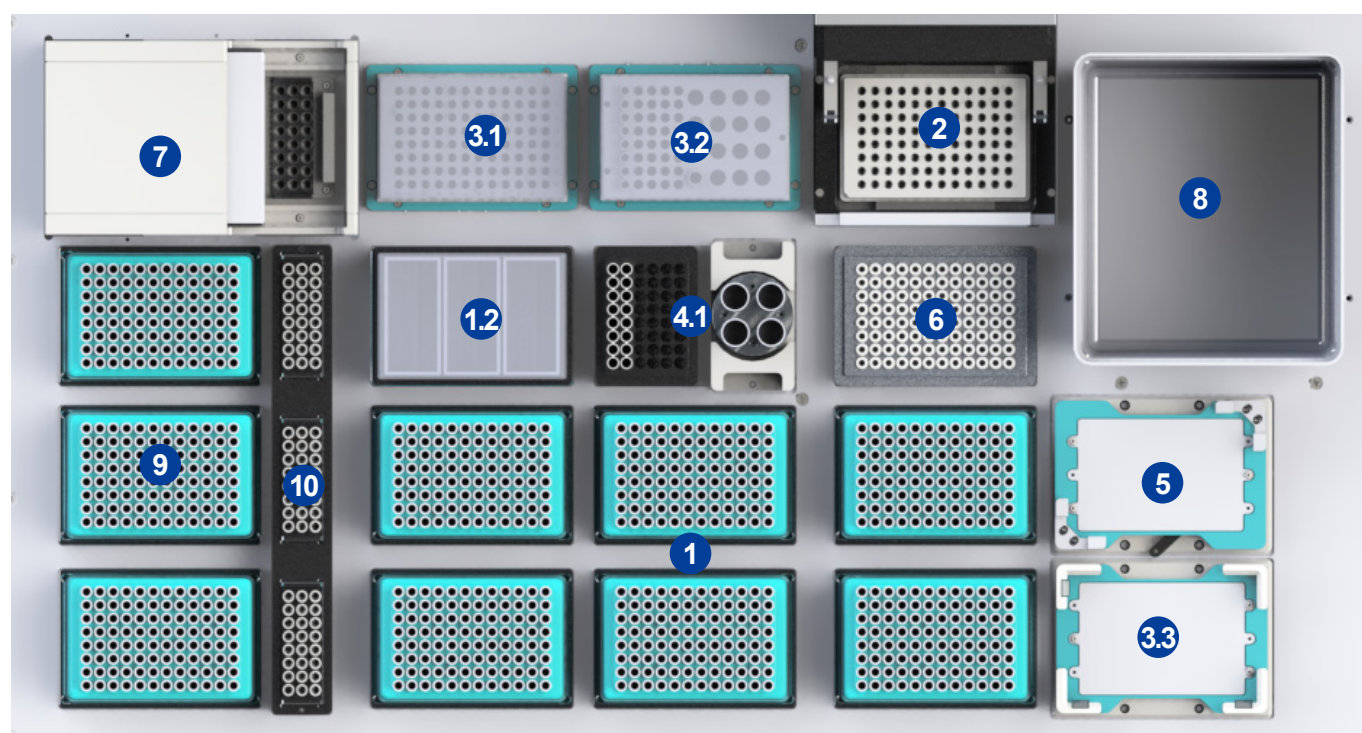


Plate Layout



① Tip Area

200 µL / 50 µL TIP holders.

② PCR Block

Mainly used for the PCR amplification step during the library preparation process. Can place 96×0.1 mL full-skirted PCR consumables.

③ Temp. Control Block

Temp. control range: 4~105 °C, can store reagents with refrigeration needs.

3.1 12×8×0.2 mL PCR tube.

3.2 16×1.5 / 2.0 mL frozen storage tube+5×8×0.2 mL PCR tube.

3.3 96-deepwell plate.

④ Reagent Area

Equipped with a normal reagent rack, which can place fluorescent reagents and transfer tube caps.

4.1 6×8×0.2 mL PCR tube, with a magnetic bead mixing block.

4.2 3×120 mL large volume reservoir.

⑤ Thermo Shaker Incubator Block

96-deepwell plate can be heated, incubated and mixed, with an amplitude of 3 mm and a max speed of 1500 rpm.

Temperature range: 4 °C~105 °C, good temperature uniformity.

⑥ Magnetic Area

The bottom 96-well magnetic area can closely fit with the 2.0 mL / 1.0 mL 96-well plate, and use rising and falling function of the magnetic area to achieve the combination and separation with the magnetic beads.

⑦ Fluorometer

The quality control block can simultaneously detect 24 samples, requiring 2 µL of samples to obtain accurate sample concentrations, with the minimum detection limit down to 0.4 ng (dsDNA).

⑧ Waste Area

TIP off box; the waste liquid container is freely accessible.

⑨ Expandable Area

Used for stacking supply consumables.

⑩ Fluorometer Consumables

Equipped with shading covers to store fluorescent reagents and consumables.

Specification

Model	Auto-NGS 180S					
Throughput	1-48					
Tiles number	18					
Pipettor	Specification: 200 μ L; 24-channel (can be used as a single channel) Minimum detection volume: 20 μ L					
Pipetting range	1-200 μ L					
Pipetting precision (CV)	1 μ L: \leq 8%	2 μ L: \leq 5%	5 μ L: \leq 4%	20 μ L: \leq 1%	100 μ L: \leq 1%	200 μ L: \leq 1%
Pipetting accuracy (A)	1 μ L: \pm 10%	2 μ L: \pm 8%	5 μ L: \pm 4%	20 μ L: \pm 2%	100 μ L: \pm 1%	200 μ L: \pm 1%
Temperature control block	Including 3 temperature control blocks Temperature control range: 4~105 $^{\circ}$ C Temperature control accuracy: \leq 1 $^{\circ}$ C Temperature control uniformity: \leq 1 $^{\circ}$ C @55 $^{\circ}$ C					
Thermal cycling block	Temperature control range: thermo lid: 30 $^{\circ}$ C~120 $^{\circ}$ C; block: 4 $^{\circ}$ C~99 $^{\circ}$ C Uniformity: \leq 0.7 $^{\circ}$ C Accuracy: \leq \pm 0.3 $^{\circ}$ C					
Fluorescence detection throughput	24					
Fluorescence detection range	0.4 ng-100 ng					
Heating mixing block	Yes					
Magnetic bead shaking block	Yes					
Magnetic plate	96-well annular magnetic plate					
Gripper	Yes					
Consumable stacking mode	Consumable stack					
UV sterilization	Equipped with UV sterilization lamp, HEPA device					
Instrument port	USB port					
Information management	External scanner for entering sample / reagent information Expandable LIS system connection Expandable cloud database connection					
Operating environment	Temperature requirement: 20 \pm 5 $^{\circ}$ C Relative humidity: \leq 80 %					
Weight	200 kg					
Power supply	100~240 V, 50 / 60 Hz, rated power 1200 W					

Ordering Information

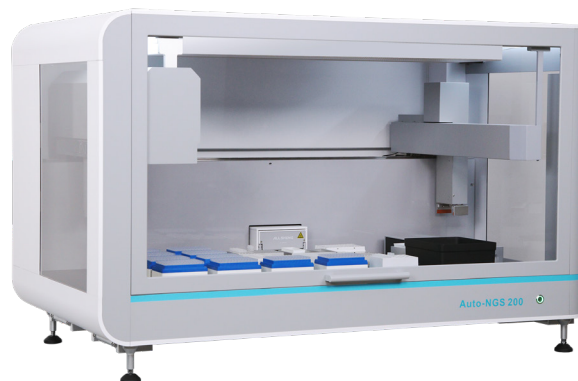
Code	Product description
AS-27060-00	Auto-NGS 180S automated NGS library preparation workstation

Auto-NGS 200

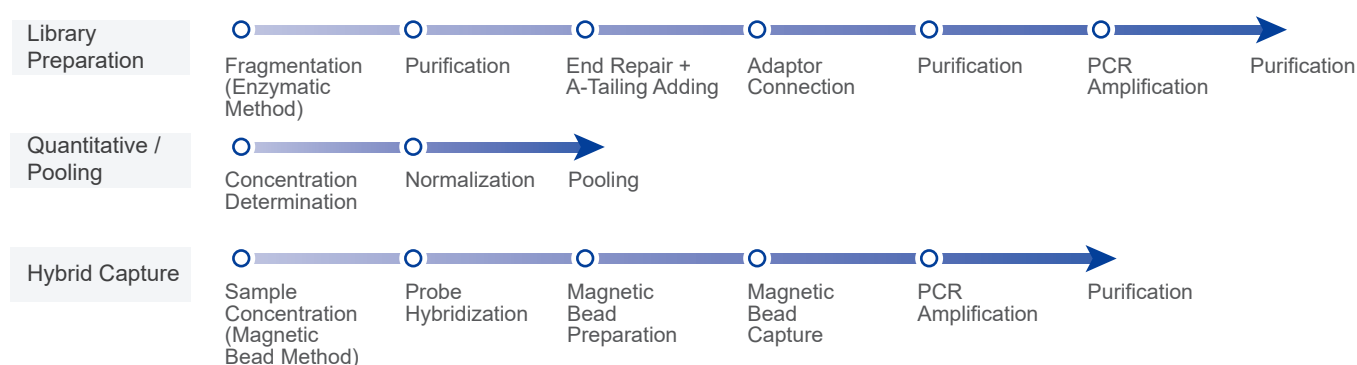
Automated NGS Library Preparation Workstation

It is a automated NGS library preparation workstation that meets the needs of library preparation, quantitation, multi-targeting and hybrid capture only one time. The instrument has a built-in 24-well fluorometer and PCR amplification block, which really realizes the convenient operation of sample-to-library, without manual intervention in the whole process.

The 27 plate positions, together with the gripper and 24-channel pipettor, can realize the relatively simple library preparation of 96 samples, as well as the simplified type of fully automated library preparation and hybrid capture of 16 samples.



Whole Process Automation Design



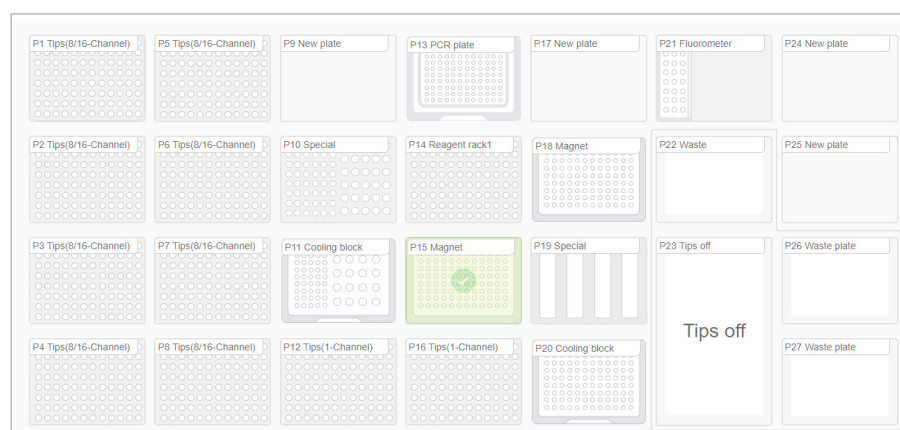
Meet More Application Needs

Flexible software with full-featured blocks enables the instrument to be adapted to a wide range of library preparation needs.



Fully Open Instrument Configuration

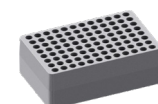
Support the customization of tabletop blocks. Based on the standard version, the plate block shape and position can be adjusted according to the application requirements.



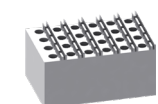
For example, in the sample loading area, depending on the form of sample storage, the corresponding block can be selected.



SBS standard tray

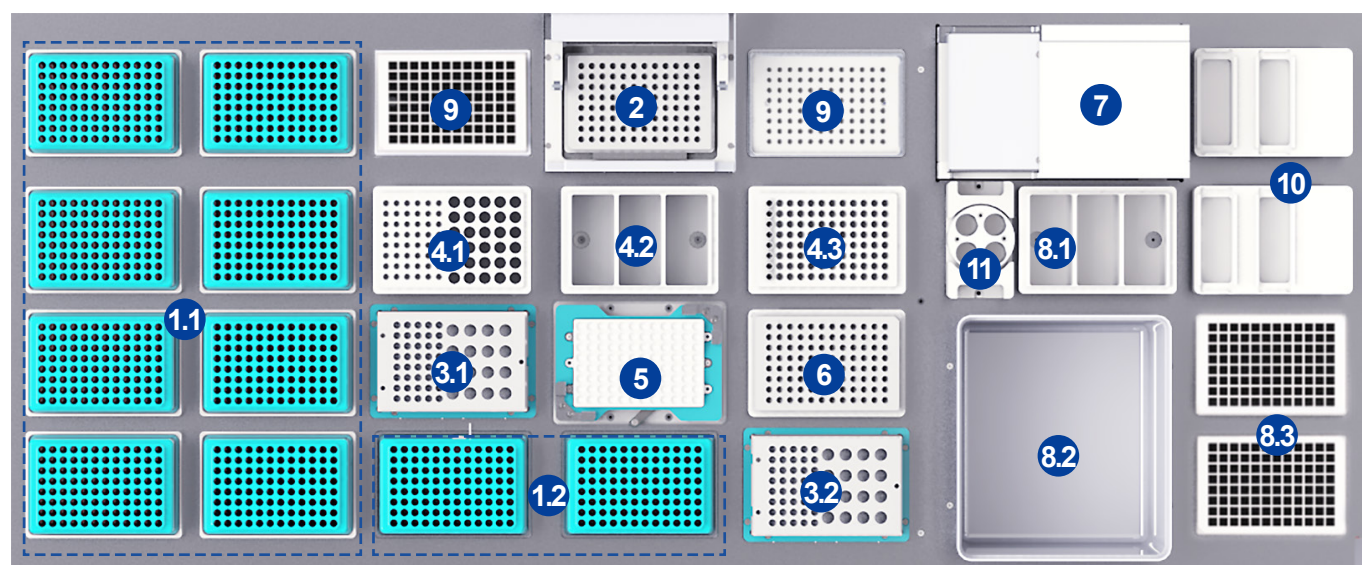


96 PCR plate



24×1.5 mL
centrifuge tube

Plate Layout



1 Tip Area

1.1 200 µL / 50 µL TIP holders.

1.2 Two specifications of TIP can be combined into one plate for single channel pipetting; automatic loading tip mode, saving time and reducing consumption.

2 PCR Block

Mainly used for the PCR amplification step during the library preparation process. Can place 96×0.1 mL full-skirted PCR consumables.

3 Temp. Control Block

Temp. control range: 4~105 °C, can store reagents with refrigeration needs.

3.1 16×1.5 / 2.0 mL frozen storage tube+5×8×0.2 mL PCR tube.corresponding sample racks can also be selected according to the type of sample tube, and customization is available.

3.2 16×1.5 / 2.0 mL frozen storage tube+5×8×0.2 mL PCR tube

4 Reagent Area

Equipped with a normal reagent rack, which can place fluorescent reagents and transfer tube caps.

4.1 6×8×0.2 mL PCR tube+30×1.5 / 2.0 mL frozen storage tube

4.2 3×120 mL large volume reservoir.

4.3 12×8×0.2 mL PCR tube, corresponding sample racks can also be selected according to the type of sample tube, and customization is available.

5 Thermo Shaker Incubator Block

96-deepwell plate can be heated, incubated and mixed, with an amplitude of 2 mm and a max speed of 3000 rpm.

Temperature range: +5 °C~105 °C, good temperature uniformity.

6 Magnetic Area

The bottom 96-well magnetic area can closely fit with the 2.0 mL / 1.0 mL 96-well plate, and use rising and falling function of the magnetic area to achieve the combination and separation with the magnetic beads.

7 Fluorometer

The quality control block can simultaneously detect 24 samples, requiring 2 µL of samples to obtain accurate sample concentrations, with the minimum detection limit down to 0.4 ng (dsDNA).

8 Waste Area

8.1 300 mL waste liquid container.

8.2 TIP off box; both the waste liquid container and TIP off box are freely accessible.

8.3 Waste plate area.

9 Expandable Area

Used for stacking deepwell plates and PCR plates, up to 3 can be stacked.

10 Fluorometer Consumables

Equipped with shading covers to store fluorescent reagents and consumables.

11 Magnetic Bead Suspension Module

Specification

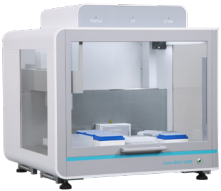
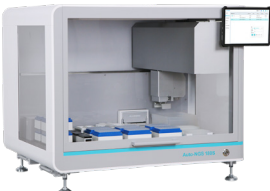
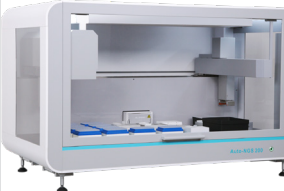
Model	Auto-NGS 200					
Throughput	1-96					
Tiles number	27					
Pipettor	Specification: 200 μ L; 24-channel (can be used as a single channel) Minimum detection volume: 20 μ L					
Pipetting range	1-200 μ L					
Pipetting precision (CV)	1 μ L: \leq 8%	2 μ L: \leq 5%	5 μ L: \leq 4%	20 μ L: \leq 1%	100 μ L: \leq 1%	200 μ L: \leq 1%
Pipetting accuracy (A)	1 μ L: \pm 10%	2 μ L: \pm 8%	5 μ L: \pm 4%	20 μ L: \pm 2%	100 μ L: \pm 1%	200 μ L: \pm 1%
Temperature control block	Including 2 temperature control blocks Temperature control range: 4~105 $^{\circ}$ C Temperature control accuracy: \leq 1 $^{\circ}$ C Temperature control uniformity: \leq 1 $^{\circ}$ C @55 $^{\circ}$ C					
Thermal cycling block	Temperature control range: thermo lid: 30 $^{\circ}$ C~120 $^{\circ}$ C; block: 4 $^{\circ}$ C~99 $^{\circ}$ C Uniformity: \leq 0.7 $^{\circ}$ C Accuracy: \leq \pm 0.3 $^{\circ}$ C					
Fluorescence detection throughput	24					
Fluorescence detection range	0.4 ng-100 ng					
Heating mixing block	Yes					
Magnetic plate	96-well annular magnetic plate					
Gripper	Yes					
Consumable stacking mode	Stack plate lifting block					
UV sterilization	Equipped with UV sterilization lamp, HEPA device					
Instrument port	USB port					
Information management	External scanner for entering sample / reagent information Expandable LIS system connection Expandable cloud database connection					
Operating environment	Temperature requirement: 20 \pm 5 $^{\circ}$ C Relative humidity: \leq 80 %					
Weight	300 kg					
Power supply	100~240 V, 50 / 60 Hz, rated power 1200 W					

Ordering Information

Code	Product description
AS-27040-00	Auto-NGS 200 automated NGS library preparation workstation

Automated NGS Library Preparation Workstation - Selection Guide

Basic Information

				
Model	Auto-NGS 100R	Auto-NGS 100RF	Auto-NGS 180S	Auto-NGS 200
Throughput	1-24	1-24	1-96	1-96
Pipetting channel	8	8	24	24
Pipetting principle	Air displacement type	Air displacement type	Air displacement type	Air displacement type
Pipetting range	1-200 µL	1-200 µL	1-200 µL	1-200 µL
Gripper	-	-	✓	✓
Mixing block	-	-	✓	✓
Quality control block	-	✓	✓	✓
PCR block	✓	✓	✓	✓
Cooling block	✓	✓	✓	✓
Magnetic plate block	✓	✓	✓	✓
Operation method	PC	PC / 10-inch touch screen	PC / 10-inch touch screen	PC
Dimension (mm)	799×767×775	800×774×775	980×793×830	1420×790×800
Weight (kg)	115	130	200	300

Library Preparation Type (Throughput)

Whole genome library preparation	24	24	48	48
Metagenomics library preparation	24	24	48	48
Multiplex amplicons library preparation	24	24	72	96
Unicellular library preparation	-	-	24	24
Hybrid capture sequencing	-	-	24	24

Feyond-F100

Fluorescence Microplate Reader

Feyond-F100 is an economical, single fluorescence microplate reader. This product is designed for bioluminescence scientific research, and can meet the requirements of nucleic acid quantification, fluorescent protein determination, molecular interaction studies, Ca^{2+} flow analysis, as well as reporter genes, fluorescent kinases and cell-based studies.



01 Long-Life Xenon Light Source



Feyond-F100 adopts high-energy xenon lamp as light source, which can realize high-resolution, high-sensitivity and ultra-fast detection test. The service life can be up to 10 years, no need to warm up, and it can be detected when it is turned on.

02 High Performance Filter



Filter-based fluorescence detection has high advantages in sensitivity and wavelength selection. Filters provide higher sensitivity, greater light transmittance, better filtering, and faster wavelength selection.

03 Precise Kinetics

Feyond-F100 can be used for fast kinetic analysis (such as Ca^{2+} flux analysis) with a high-precision injector. It can monitor the fast kinetic reaction in time from the beginning of the experiment to ensure the integrity of the experiment.

Feyond-F100 Fluorescence Microplate Reader Common Applications

- Ca^{2+} flow analysis
- Cell proliferation
- Cytotoxicity
- Cell adhesion
- Ion channel
- Immunodetection
- Enzymatic activity
- Phagocytosis
- Nucleic acid quantitative assay
- Bacterial quantitative assay
- Oligonucleotide assay
- Reporter gene detection

Specification

Model	Feyond-F100
Reading time	Top reading
Excitation light source	Xenon lamp
Detector	PMT
Wavelength range	EX: 200-1000 nm; EM: 270-850 nm
Filter EX / EM	3 groups: EX485 / EM530, EX523 / EM564, EX624 / EM692 (other wavelengths can be replaced)
Detection limit	1 pM (optimization condition)
Linear dynamic range	6 logs

Basic Parameter

Plate	6-384 well
Accessories	Injector
Shaking mode	Linear, annular, double annular
Incubation temperature	RT. +4 °C~45 °C
Temperature uniformity	±0.5 °C @37 °C
Software interface	Chinese / English
Screen size	10-inch
Operation method	Capacitive screen touch, mouse
Data capacity	10 GB
Compatibility	Support PC software, Win7 / Win10 64 bit
Network transmission	The test data report can be uploaded to the PC server through FTP
Instrument port	2 USB Type A ports, 1 USB Type B port, 1 Ethernet port, Rs232 bus interface (connected to the injector)
Power supply	AC 100-240 V, 50-60 Hz
Dimension (W×D×H)	420×487×318 mm
Weight	30 kg

Accessory Parameter

Automatic Injector	Quantity	1 / 2
	Dispensing volume	5-1000 µL, 1 µL increment
	Liquid injection speed	125-500 µL/s
	Accuracy	±1 µL @5-50 µL; ±2% @51-1000 µL
	Waste liquid collection	50 mL
Software	Analysis software	ReaderIt-II software

Ordering Information

Code	Product description
AS-19100-00	Feyond-F100 fluorescence microplate reader
AS-19011-01	ReaderIt-II PC analysis software
AS-19011-04	MSS-2 automatic injector
AS-19101-01	485-530 fluorescence filter (standard)
AS-19101-02	523-564 fluorescence filter (standard)
AS-19101-03	624-692 fluorescence filter (standard)

GeneCE-100

Bio-Fragment Analyzing System

GeneCE-100 offers nucleic acid quality control for a range of applications, including DNA QC, NGS libraries, cell-free DNA (cfDNA), PCR fragments and RNA QC. It provides consistent high-precision analysis by using the same single-channel cartridge. And it provides flexible sample capacity from 1 to 96 samples.



Features

01 Easy to Use

Equipped with a 10-inch rotatable touch screen. It can switch between horizontal and vertical screens according to analysis needs.

02 High Sensitivity

Reliable detection with sensitivity down to 1 pg/μL.

03 High Resolution

Resolution down to 1~4 bp for fragment <500 bp (2 bp for fragment <200 bp).

04 Reliable Standard

Provide concentration, size, 28 S / 18 S, DNA integrity indicator (DII), RNA integrity indicator (RII), DV200, etc.

05 Gel Cartridges

Designed for analyzing at least 200 samples.

06 Parallel Analysis

Flexible sample capacity from 1 to 96 samples.

07 Intelligent Counting

The RFID chip embedded in the cartridge can automatically record the number of tests and expiration dates, and provide prompts.

08 Multiple Specification

NH1 high-sensitivity, SH1 high-resolution DNA analysis cartridge kits and SC2 standard cartridge kits.

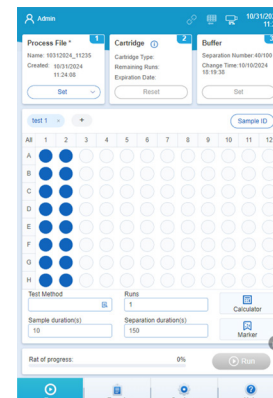
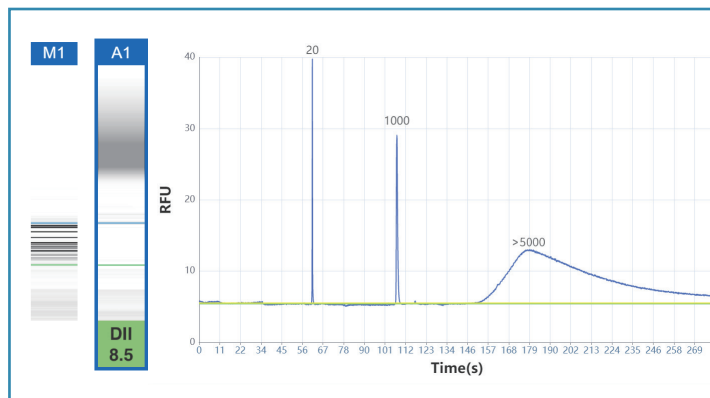
Experimental Process



Software Feature

Powerful independent control software allows for well layout, parameter settings and data analysis through a 10-inch high-resolution touch screen. With an intuitive and simple interface, it is easy to operate and can efficiently complete the progress of sample analysis.

- User authorization management and user independent account and password.
- Select single or superimposed views of Gel and electropherogram views.
- Unique algorithms can directly reflect the characteristics of peak values, including peak number, peak height, peak width and area.



Specification

Model	GeneCE-100
Detection method	Fluorescence
System light source	LED
Detector	High-sensitivity PMT
Throughput	1~96
Detection limit	1 pg/μL (optimized condition)
Resolution	1~4 bp
Analysis time	3~5 min/sample
Sample consumption	<0.2 μL
Fragment size CV %	≤2 %
Fragment concentration CV %	≤4 %
Instrument type	Single channel
Operating system	Windows 11 and higher
Display method	10-inch high-resolution touch screen
Power supply	110~240 V/AC, 50/60 Hz
Weight	26 kg
Dimension	460×445×448 mm

Reagent

Reagent name	Separation range	Max. resolution	Sample size / cartridge	Detection limit
Standard cartridge kit (SC2)	20-5000 bp	5~10 bp	200 times	5 pg/μL
High-resolution analysis cartridge kit (SH1)	20-5000 bp	1~4 bp	200 times	5 pg/μL
High-sensitivity analysis cartridge kit (NH1)	20-5000 bp	1~4 bp	100 times	1 pg/μL

Ordering Information

Code	Product description
AS-31010-00	GeneCE-100 Bio-Fragment Analyzing System

Fluo-200 / Fluo-800

Fluorometer

The new fluorometer Fluo-200 and Fluo-800 are used for high sensitivity quantitative analysis of DNA, RNA and protein.

Fluo-800 is available to do the fluorescence detecting for 8 samples in simultaneous. High precision detection method reduces the variation effectively. Easy and humanized software, intuitive user interface and rapid test method greatly shorten the testing time.



Fluo-200



Fluo-800

Fluo-200

- Simple and intuitive----7 inch color touch screen
- Fast detection----fast & accurate quantification of DNA, RNA & protein in 5 s
- Accurate quantification----high accuracy with only 1-20 μL samples
- High sensitivity----the lowest detection limit can be 0.1 $\text{pg}/\mu\text{L}$ (dsDNA)
- Dual channel detection----adapt to more dyes
- Stores results----up to 20000 programs can be stored
- Data save----save sample data as a CSV or PDF file
- Data export----be exported directly to U disk, or connected to an external printer
- Open reagent application----can match reagents from different manufacturers



Fluo-800

- Simple and intuitive----7 inch color touch screen
- High throughput----8 samples per run
- Fast detection----8 samples can be detected in 6 s
- Accurate quantification----high accuracy with only 1-20 μL samples
- High sensitivity----the lowest detection limit can be 1 $\text{pg}/\mu\text{L}$ (dsDNA)
- Stores results----up to 20000 programs can be stored
- Dual channel detection----adapt to more dyes
- Data export----be exported directly to U disk, or connected to an external printer
- Data save----save sample data as a CSV or PDF file
- Open reagent application----can match reagents from different manufacturers



01 User Authorization Management

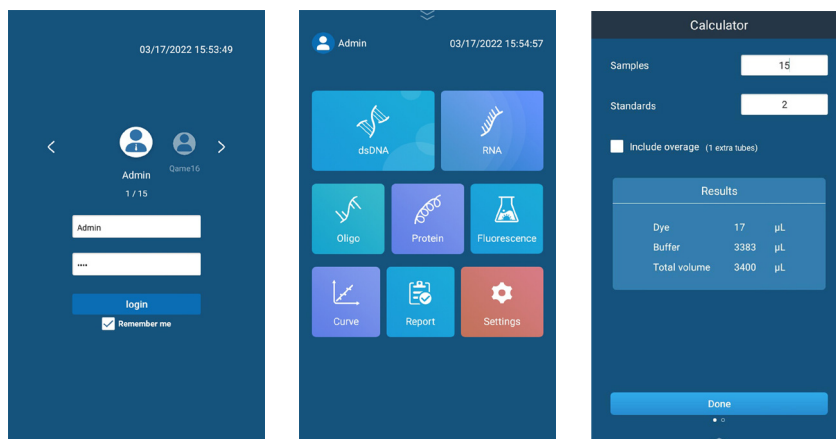
User independent account and password to ensure program stability.

02 Intuitive Interface Display

Modular layout makes function display more intuitive.

03 Reagent Concentration Calculator

Quickly generate working solution preparation dosage, shorten reagent preparation time.



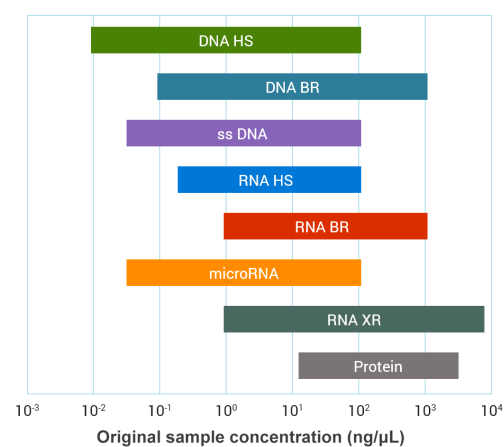
04 Sample Concentration Analysis

To use the calculator to show how the assay range changes. It can help to select the appropriate assay based on sample volume and estimated sample concentration for the most accurate quantitation.

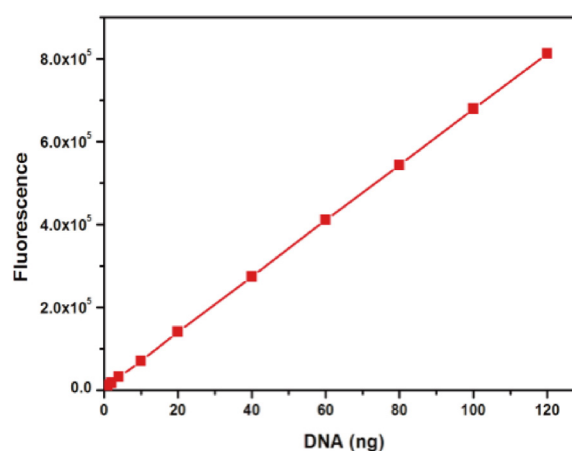
05 NGS Workflow Calculator

Use the molarity calculator to convert to molarity based on nucleic acid length and measured concentration. Required weight, concentration, or molarity can be easily normalized via the normalization calculator, which replaces spreadsheet calculations for standard normalization during sequence library preparation.

Performance Test



① Common samples and quantitative ranges



② Allsheng® high sensitivity dsDNA quantitation kit with linear quantitation range of 0.2–100 ng

Specification

Model	Fluo-200	Fluo-800
Light source	LED	LED
Excitation filter	Blue: 460±20 nm Red: 625±20 nm	Blue: 460±20 nm Red: 625±20 nm
Emission filter	Green: 525-570 nm (45 nm) Red: 670-725 nm (55 nm)	Green: 525-570 nm (45 nm) Red: 670-725 nm (55 nm)
Detector	Photodiode	Photodiode
Throughput	1	8
Sample tube type	0.5 mL PCR tube	0.2 mL PCR tube
Linear	$R^2 \geq 0.995$	$R^2 \geq 0.995$
Linear range	5 orders of magnitude	4 orders of magnitude
Sensitivity (detection limit)	<0.1 pg/μL (dsDNA HS)	<1 pg/μL (dsDNA HS)
Measurement time	≤5 s / sample	≤6 s / 8 samples
Input power	24 V 2 A	24 V 2 A
Operating voltage	100-240 V @50-60 Hz	100-240 V @50-60 Hz
External port	USB (Type A) ×2, USB (Type B) ×1, LAN ×1	USB (Type A) ×2, USB (Type B) ×1, LAN ×1
Display	7-inch touch screen	7-inch touch screen
Dimension (D×W×H)	286 mm×161 mm×61 mm	286 mm×161 mm×75 mm
Weight	1.5 kg	2 kg
Storage capacity	20000 programs	20000 programs

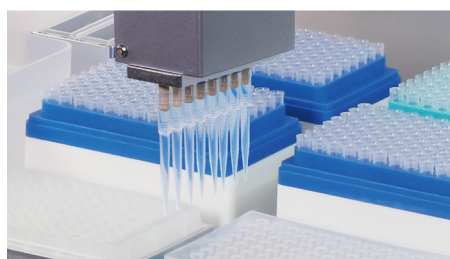
Ordering Information

Code	Product description
AS-18050-00	Fluo-200 fluorometer (Blue & Red)
AS-18060-00	Fluo-800 fluorometer (Blue & Red)
RS-FL 0101-S	Allsheng® high sensitivity dsDNA quantitation kit (100 assays)
RS-FL 0101-M	Allsheng® high sensitivity dsDNA quantitation kit (200 assays)
RS-FL 0101-L	Allsheng® high sensitivity dsDNA quantitation kit (1000 assays)
RS-FL 0102-S	Allsheng® broad range dsDNA quantitation kit (100 assays)
RS-FL 0102-M	Allsheng® broad range dsDNA quantitation kit (200 assays)
RS-FL 0102-L	Allsheng® broad range dsDNA quantitation kit (1000 assays)
RS-FL 0103-S	Allsheng® high sensitivity ssDNA quantitation kit (100 assays)
RS-FL 0103-M	Allsheng® high sensitivity ssDNA quantitation kit (200 assays)
RS-FL 0103-L	Allsheng® high sensitivity ssDNA quantitation kit (1000 assays)

Auto-NRT 100

Automated PCR Setup System

Auto-NRT 100 is a pipetting workstation specially designed for automated PCR set-up system, which can meet the set-up requirements of various types of PCR systems such as PCR and qPCR. 9 standard plate positions are designed, and the PCR system can be automatically constructed for up to 384 regular samples per run. It supports reagent transfer of various centrifuge tubes and 96 / 384-well PCR plates. Auto-NRT 100 is fast and reliable, effectively reducing various results deviations caused by manual pipetting steps, and ensuring the reproducible results required by the experiment. It can help you achieve simple, fast and accurate PCR set-up.



01 Flexible Pipettor Collocations

The 8-channel pipettor can be used for rapid pipetting of 8 samples, reagent addition, etc.

It can also be used as a single-channel pipettor to pipetting single-well reagents, such as Mix components in advance, or gradient dilution of standards.



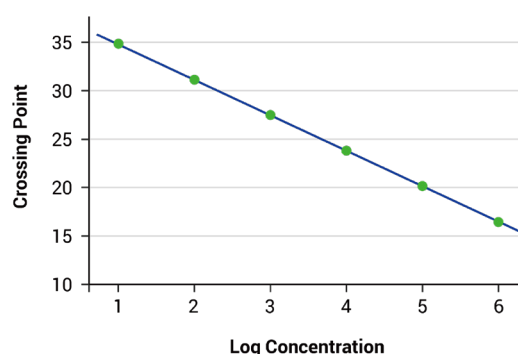
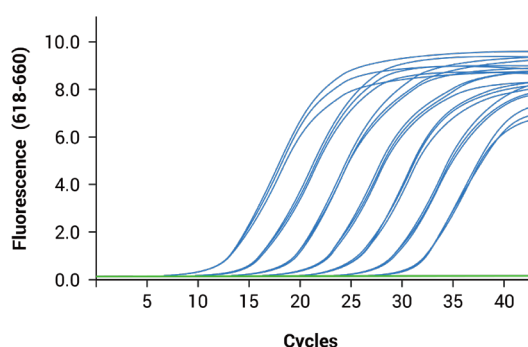
02 Open Graphical Software Design

The system includes 3 layers of account permissions, which can ensure the safety of experimental data and prevent loss of data due to program errors. The system has detailed running records, which are helpful for tracing the source of the experimental records or troubleshooting.

The system also has multiple reagent management functions, which can save multiple sets of kit information, and can individually set liquid parameters for different components.

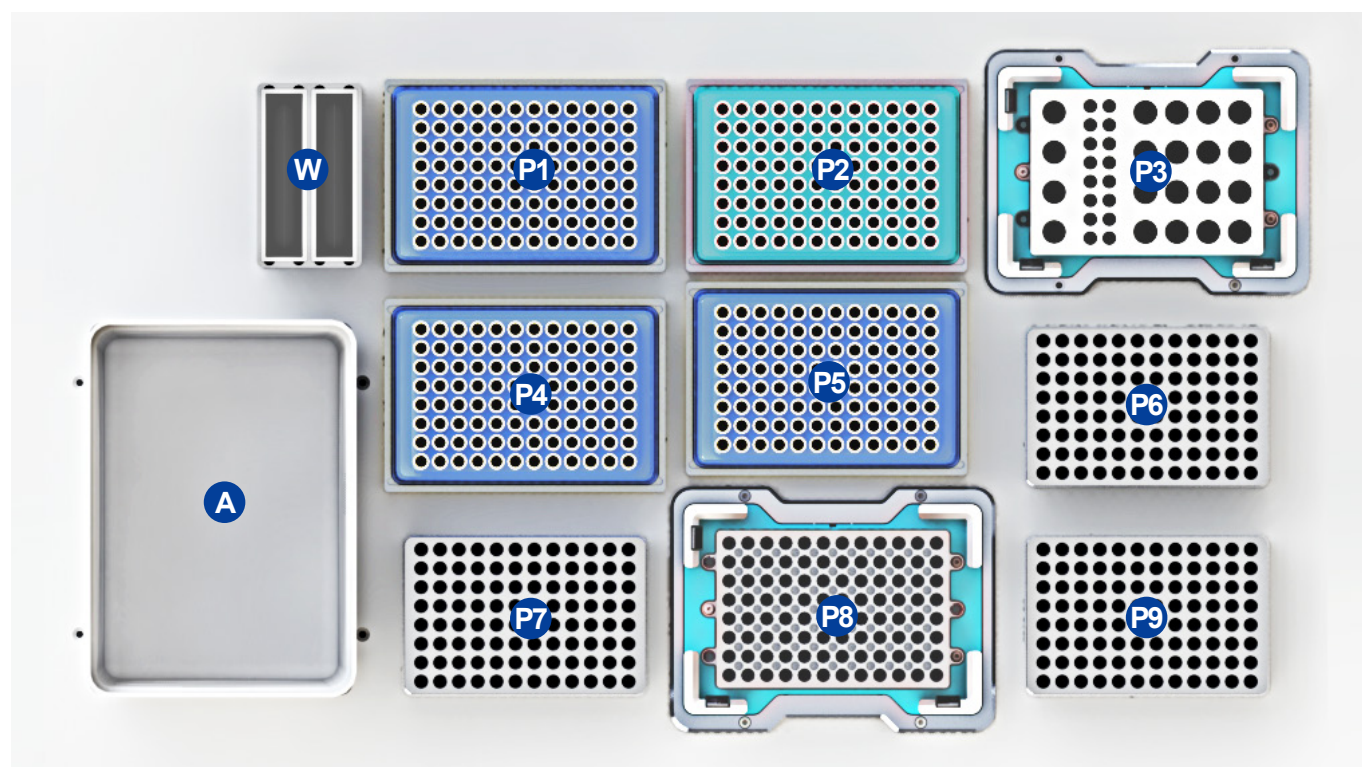
03 High-Precision Pipetting Function

In the process of PCR set-up, accurate and stable pipetting volume is crucial to the accuracy and repeatability of the results. Auto-NRT 100 uses a self-developed high-precision pipettor, which can ensure the accuracy of pipetting even with low liquid volumes. With the open software design, corresponding pipetting parameters can be set for liquids of different properties to ensure that there is no adhesion during liquid pipetting as far as possible.



Note: The shrimp genomic DNA infected with IHNV was serially diluted with Auto-NRT 100, and the corresponding reaction system was configured according to the detection requirements, and then qPCR detection was performed, and a standard curve was constructed. The results showed good repeatability of 3 samples per concentration and a standard curve R^2 of 0.996.

Plate Layout



1 Tip Area

P1, P2 Can place 50 μL or 200 μL tip holder.

2 Reaction Area

P8 Reaction area, 8-strip PCR tubes or PCR plates can be used for mixing of mix and template and subsequent PCR reactions.

- Optional temperature control block^[1] can meet special temperature needs.

3 Variable Area

P4, P5, P7, P9 The functional positioning of the plate position can be flexibly adjusted according to the experimental needs (can be set as TIP area or reaction area).

- TIP area: can place 50 μL or 200 μL of tip holder for 8-channel use.
- Reaction area: 8-strip PCR tubes or PCR plates can be placed, without temperature control block.

4 Waste Area

A Tip off box can be freely accessible.

5 Reagent Area

W 2×60 mL liquid tank, can be used to hold large volumes of liquids, such as ultrapure water for gradient dilution, etc.

P3 Reagent area, can be equipped with a reagent rack (2×8×0.2 mL PCR tubes+20×2.0 mL tubes). 8×0.2 mL PCR tubes can be used for gradient dilution of standards, and the other column is used for placement of small volume reagents.

- The reagent slot block can be selected according to the customer's experimental needs.
- Optional temperature control block^[1] can meet the needs of low temperature storage of special reagents.

6 Sample Area

P6 Normal temperature sample area, the corresponding sample rack can be selected according to the type of consumables for storing samples. 8-strip PCR tubes, PCR plates or 96-well plates can be flexibly placed.

[1] Temperature control block (P3, P8) parameters: temperature range: 4~105 °C, accuracy: ± 0.5 °C (55 °C), uniformity: ± 0.5 °C (55 °C)

Pipettor Specification

Pipettor	8-channel fixed spacing pipettor, can be used as a single channel			
Pipetting principle	Air displacement pipetting technology			
Pipetting range	2-200 μL			
Pipetting accuracy	2 μL : ± 12 %	20 μL : ± 2 %	100 μL : ± 1 %	200 μL : ± 1 %
Pipetting precision (CV)	2 μL : ≤ 6 %	20 μL : ≤ 2 %	100 μL : ≤ 1 %	200 μL : ≤ 1 %

Specification

Model	Auto-NRT 100
Throughput	1-384
Plate number	9 standard plates+(TIP off box+waste liquid area)
Available well plate	SBS standard 24 / 96 / 384 deep and shallow well plates
UV sterilization	Equipped with UV sterilization lamp, HEPA filter device
Consumable	Matching Allsheng TIP
Temp. control block	Equipped with 2 temperature control blocks; temperature control range: 4~105 °C; temperature accuracy: ±0.5 °C, @55 °C; temperature uniformity: ±0.5 °C, @55 °C
Instrument port	USB port, CAN communication
IoT	Expandable
Dimension (W×D×H)	740×630×670 mm
Ambient condition	Temperature requirement: 10~40 °C; relative humidity: ≤ 80 %
Power input	100-240 V, 50/60 Hz, rated power 550 W

Ordering Information

Code	Product description
AS-26010-00	Auto-NRT 100 automated PCR setup system, 100-240 VAC, 550 W
AS-27021-01	TIP off box (recommended to store less than 700)
AS-27021-02	Standard tray (can place SBS standard consumables without special requirements, such as Allsheng TIPs)
AS-27021-03	Heightened tray (can place SBS standard consumables that need to be heightened , such as Allsheng TIPs)
AS-27021-04	PCR tube holder (place 8-strip PCR centrifuge tube, non-skirted 96-well PCR plate)
AS-27021-05	Reagent rack (places 60 mL reservoir and 12×2 mL/1.5 mL centrifuge tubes)
AS-23010-00	Au-Cooler dry baths for workstation (heating/cooling), 24 VDC, 160 W, with CAN

Code	Volume	Product description	Packing
AS-TT-50-N	50 µL	Allsheng tip, transparent, boxed	96 pcs/box, 24 boxes/carton
AS-TT-50-NL	50 µL	Allsheng tip, transparent, boxed, low adsorption	96 pcs/box, 24 boxes/carton
AS-TT-50-NS	50 µL	Allsheng tip, transparent, boxed, sterile	96 pcs/box, 24 boxes/carton
AS-TT-50-NSL	50 µL	Allsheng tip, transparent, boxed, sterile, low adsorption	96 pcs/box, 24 boxes/carton
AS-TTF-50-NS	50 µL	Allsheng tip, transparent, boxed, sterile, filter element	96 pcs/box, 24 boxes/carton
AS-TTF-50-NSL	50 µL	Allsheng tip, transparent, boxed, sterile, filter element, low adsorption	96 pcs/box, 24 boxes/carton
AS-TT-200-N	200 µL	Allsheng tip, transparent, boxed	96 pcs/box, 24 boxes/carton
AS-TT-200-NL	200 µL	Allsheng tip, transparent, boxed, low adsorption	96 pcs/box, 24 boxes/carton
AS-TT-200-NS	200 µL	Allsheng tip, transparent, boxed, sterile	96 pcs/box, 24 boxes/carton
AS-TT-200-NSL	200 µL	Allsheng tip, transparent, boxed, sterile, low adsorption	96 pcs/box, 24 boxes/carton
AS-TTF-200-NS	200 µL	Allsheng tip, transparent, boxed, sterile, filter element	96 pcs/box, 24 boxes/carton
AS-TTF-200-NSL	200 µL	Allsheng tip, transparent, boxed, sterile, filter element, low adsorption	96 pcs/box, 24 boxes/carton

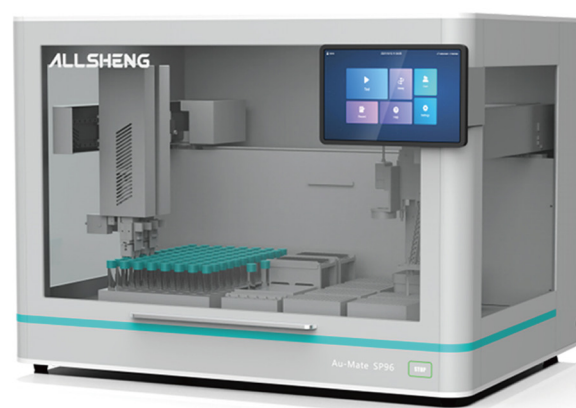
Code	Product description	Packing
AS-26010-00	Disposable 60 mL reagent tank, PP material, transparent and sterile	20 pcs/bag, 10 bags/carton

Au-Mate SP96

Automated Sample Transfer Processing System

Automated sample transfer processing system is for liquid sample transfer. Its main functions include automatic opening and closing of the sample tube cap, automatic sample dispensing, sample information input and partial reagent packaging.

Automatic operation, without manual intervention throughout the whole process. Can process 96 samples in one run within 35 min. The single loading processing supports modes of 5 mix 1, 10 mix 1 and 20 mix 1. It also supports the packaging of small volume reagents such as magnetic beads and proteinase k.



Features

01 Easy to Operate

With intuitive graphical software interface, the operator only need simple training to use.

02 Good Compatibility

Support multiple mixing modes of 5 mix 1, 10 mix 1 and 20 mix 1.

03 Flexible Configuration

Modular design of cup and clamp parts, easy to replace and upgrade.

04 Barcode Scanning

Equipped with a high-speed barcode scanner to quickly identify sample information while inserting into the sample holder.

05 Efficient Pipetting

Standard equipped with two high-precision pipettors and a double cap-opening manipulator. 96 samples can be processed in 35 min.

06 Cross-Contamination Prevention

Equipped with UV sterilization lamp and HEPA to prevent cross-contamination.

07 Reagent Refrigeration

Optional reagent refrigeration block, can be set at 0 °C ~ 105 °C, automatic cooling upon startup.

08 Information Management

Can expand the information management system such as LIS system.

09 IoT

Can expand the connection to the cloud for data management and remote management.

10 Liquid Level Detection

The pipettor's pressure detection technology can detect the residual liquid volume and the height of the liquid level.

Specification

Model	Au-Mate SP96
Throughput	1-96
Tube type	Support 5 mL ~ 30 mL tube and mixing modes of 5 mix 1, 10 mix 1, 20 mix 1
Plate number	Can place 6×96 deepwell plates
Number of tips	Can place up to 2 boxes of tips
Reagent dispensing	Support reagent packaging functions, such as magnetic beads, proteinase k, internal standard, etc
Manipulator	2 cap-opening manipulator
Processing speed	30 min / 96 samples
Pollution protection	Equipped with HEPA, UV sterilization lamp; Dual protection of the pipettor software aspirating and the liquid tray to prevent cross-contamination caused by liquid dripping during pipetting
Operating software	Android system, tablet PC touch operation software, built-in 48 samples and 96 samples default sample transfer modes

Instrument port	USB port
Communication	CAN communication
Information management	Support the automatic sample information input, which can expand the LIS system
Power supply	100~240 V, 50 / 60 Hz, rated power 400 W

Pipettor

Specification	2×1000 µL pipettor				
Liquid level detection	Pressure liquid level detection, supporting liquid leakage and blockage detection				
Pipetting range	1-1000 µL				
Precision (CV)	5 µL: ≤2.5 %	20 µL: ≤2 %	100 µL: ≤0.5 %	500 µL: ≤0.5 %	1000 µL: ≤0.3 %
Accuracy (A)	5 µL: ±5 %	20 µL: ±3 %	100 µL: ±2 %	500 µL: ±1 %	1000 µL: ±1 %

II

Life Science Detection Product

Feyond-A300 / A400 / A500

Microplate Reader

Feyond series multi-mode microplate reader is specially designed for medical, biological and pharmaceutical research and development institutions to meet the needs of various drug development and life science research. The high-quality detection performance ensures high-quality analysis based on molecular biology, biochemistry and cytology.

In addition to the most basic absorbance, fluorescence and luminescence detection functions, high-performance fluorescence polarization and time-resolved fluorescence detection can also be selected. The instrument is compatible with the client-side modular upgrade function, and users can upgrade and equip with microplates and automatic injectors according to their needs.



Features

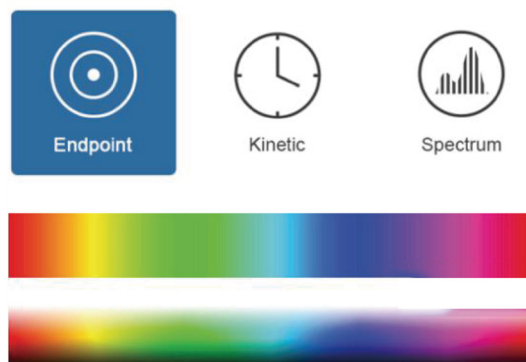
- **UV/Vis Absorbance (ABS)**---Wavelength selection is done by using an advanced monochromator system. Any wavelength between 200 to 1000 nm can be selected. Almost satisfy all absorbance detection applications.
- **Fluorescence (FL)**---Fluorescence detection adopts the filter-based optics detection, which is composed of xenon lamp, filter and PMT and can best fit the characteristics of fluorescent dyes.
- **Luminescence (LUM)**---Feyond series luminescence microplate readers show excellent sensitivity and wide dynamic range in both glow and flash based assays. The optimized light path minimizes signal crosstalk between wells and ensures the accuracy of experimental results.
- **Time-Resolved Fluorescence (TRF)**---Time-resolved fluorescence is based on lanthanide elements as dyes. After the excitation light is turned off, the emitted light can still be continuously expressed and released, thereby eliminating the interference of excitation light and scattered light. Time-resolved fluorescence has high sensitivity, strong specificity, good stability, and short operation flow. It is suitable for ultra-micro analysis in biology and medicine, hormone detection, viral hepatitis marker detection, target cell marker detection, and drug screening.
- **Fluorescence Polarization (FP)**---The optimized optical path design of Feyond-A500 combined with the performance of the fast switching polarizer can effectively reduce the detection deviation. This function is often used to detect the interaction between small molecules and macromolecules, such as the determination of drugs and hormones, tyrosine kinase detection, receptor / ligand research, protein / polypeptide interactions, DNA / protein interactions, etc.

01 Rotating Touch Screen

The instrument is equipped with a 10-inch touch screen, whose angle can be converted through the LCD control button to facilitate the researcher's setting of the instrument.

02 High-Quality Stable Performance

It has reference optical path to ensure more stable detection data. After the instrument is started, the light source, monochromator, detector, position, etc. will be calibrated automatically to ensure the stable and reliable operation of the instrument.



03 Modular Filter



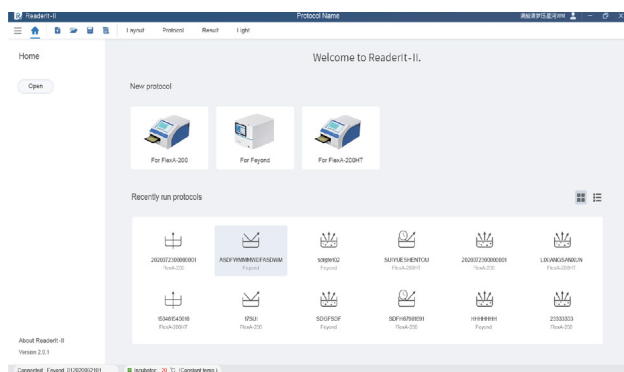
The easy-to-disassemble modular filter will bring an economical and highly sensitive solution to your fluorescence detections. Only by scanning the QR codes on the block, the instrument can read the filter information to ensure accurate experimental parameters for convenient and quick operation.

04 MSS-2 Automatic Injector (Optional)



The automatic injector can be purchased at the same time with the instrument and can also be upgraded later. Liquid injection protection: The software has a liquid injection protection function to effectively prevent the risk of sample overflow.

05 ReaderIt-II PC Analysis Software (Optional)



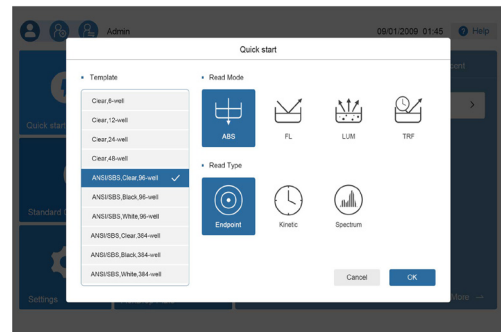
- Can provide a more comprehensive and complex data analysis algorithm than the instrument APP software
- Data export is convenient and fast. Detailed result reports can be created through built-in tools

06 u-Nano Ultra-Micro Plate (Optional)



- Quickly complete high-throughput quantification of nucleic acid and proteins without samples dilution
- The independent software can quickly give the sample concentration and purity report
- 1~16 samples can be detected at the same time, only 2~4 μL sample volume is needed

07 Easy-to-Use and Flexible Software



- **User Authority Classification**
Intuitive selection of function modes and programs and results are stored independently
- **Intuitive Interface Display**
Programs and results are stored independently, making it easy to be found the required applications
- **Powerful Data Analysis and Process**
Provide multiple data processing methods including blank subtraction, standard curve creation, qualitative analysis, quality control, kinetics and spectral analysis
- **FTP (File Transfer Protocol)**
Upload the data directly to a computer with a FTP server, and users can view the data results at any time in the authorized folder

Specification

	Model	Feyond-A300 / A400 / A500
Absorbance	Light source	Xenon lamp
	Detector	PD
	Wavelength accuracy	2 nm
	Wavelength repeatability (SD)	0.2 nm
	Half width (FWHM)	<2.5 nm
	Wavelength range	200-1000 nm, 1 nm step
	Measure range	0 - 4 OD
	Resolution	0.0001 OD
	Accuracy @450 nm	96-precision mode: $\pm (1.0 \% + 0.003 \text{ Abs}) @ (0.0-2.0 \text{ Abs})$ $\pm 2.0 \% @ (2.0-3.0 \text{ Abs})$
	Repeatability @450 nm	CV <1.0 % or SD <0.003 fast (0.0-3.0 Abs) CV <0.5 % or SD <0.003 accurate (0.0-3.0 Abs)
	Stray light	0.1 % @220 nm
	Linear @450 nm	$R^2 \geq 0.999 @ [0.0 - 3.0 \text{ Abs}]$
	Reading time	96-well plate: fast <15 s
Luminescence	Detector	PMT
	Detection limit	15 amol / well
	Linear dynamic range	6 logs
	Crosstalk	$\leq 0.05 \%$
	Wavelength range	200-850 nm
	Filter	470 nm; 560 nm
Fluorescence	Reading mode	Top reading
	Excitation light source	Xenon lamp
	Detector	PMT
	Wavelength range	EX: 200 - 1000 nm; EM: 270 - 850 nm
	Filter EX / EM	3 groups: EX485 / EM530, EX523 / EM564, EX624 / EM692 (other wavelengths can be replaced)
	Detection limit	1 pM (optimization condition)
	Linear dynamic range	6 logs
TRF (A400 / A500)	Filter EX / EM	EX365 / EM612
	Detection limit	0.02 pM (optimization condition)
FP (A500)	Filter EX / EM	EX485 / EM530
	Detection limit	5 mP

Basic Parameter

Model	Feyond-A300 / A400 / A500
Plate	6-384 well
Accessories	Microplate, injector
Shaking mode	Linear, annular, double annular
Incubation temperature	RT +4 °C~45 °C
Temperature uniformity	±0.5 °C @ 37 °C
Software interface	Chinese / English
Screen size	10-inch
Operation method	Capacitive screen touch, mouse
Data capacity	10 GB
Compatibility	Support PC software, Win7/Win10 64 bit
Network transmission	The test data report can be uploaded to the PC server through FTP
Instrument port	2 USB Type A ports, 1 USB Type B port, 1 Ethernet port, Rs232 bus interface (connected to the injector)
Power supply	AC 100-240 V, 50-60 Hz
Dimension (W×D×H)	420×550×386 mm
Weight	33 kg

Accessory Parameter

Microplate	Sample number	1-16
	Sample detection volume	2-4 µL
	Quantity	1 / 2
Automatic Injector	Dispensing volume	5-1000 µL, 1 µL increment
	Liquid injection speed	125-500 µL/s
	Accuracy	±1 µL @5-50 µL; ±2% @51-1000 µL
	Waste liquid collection	50 mL
Software	Analysis software	ReaderIt-II software

Ordering Information

Code	Product description
AS-19050-00	Feyond-A300 microplate reader (multi-mode)
AS-19060-00	Feyond-A400 microplate reader (multi-mode)
AS-19070-00	Feyond-A500 microplate reader (multi-mode)
AS-19011-01	ReaderIt-II PC analysis software
AS-19011-02	u-Nano ultra-micro plate
AS-19011-03	ABS optical performance validation board
AS-19011-04	MSS-2 automatic injector
AS-19051-01	Lum-check standardization light microplate
AS-19051-02	470-525 fluorescence filter (standard)
AS-19051-03	523-564 fluorescence filter (standard)
AS-19051-04	624-692 fluorescence filter (standard)
AS-19051-41	LUM-470 filter (standard)
AS-19051-05	365-612 time-resolved fluorescence filter (standard)
AS-19051-06	485-530 fluorescence polaroid filter (standard)

Feyond-F100

Fluorescence Microplate Reader

Feyond-F100 is an economical, single fluorescence microplate reader. This product is designed for bioluminescence scientific research, and can meet the requirements of nucleic acid quantification, fluorescent protein determination, molecular interaction studies, Ca^{2+} flow analysis, as well as reporter genes, fluorescent kinases and cellbased studies.



01 Long-Life Xenon Light Source



Feyond-F100 adopts high-energy xenon lamp as light source, which can realize high-resolution, high-sensitivity and ultra-fast detection test. The service life can be up to 10 years, no need to warm up, and it can be detected when it is turned on.

02 High Performance Filter



Filter-based fluorescence detection has high advantages in sensitivity and wavelength selection. Filters provide higher sensitivity, greater light transmittance, better filtering, and faster wavelength selection.

03 Precise Kinetics

Feyond-F100 can be used for fast kinetic analysis (such as Ca^{2+} flux analysis) with a high-precision injector. It can monitor the fast kinetic reaction in time from the beginning of the experiment to ensure the integrity of the experiment.

Feyond-F100 Fluorescence Microplate Reader Common Applications

- Ca^{2+} flow analysis
- Cell proliferation
- Cytotoxicity
- Cell adhesion
- Ion channel
- Immunodetection
- Enzymatic activity
- Phagocytosis
- Nucleic acid quantitative assay
- Bacterial quantitative assay
- Oligonucleotide assay
- Reporter gene detection

Specification

Model	Feyond-F100
Reading time	Top reading
Excitation light source	Xenon lamp
Detector	PMT
Wavelength range	EX: 200-1000 nm; EM: 270-850 nm
Filter EX / EM	3 groups: EX485 / EM530, EX523 / EM564, EX624 / EM692 (other wavelengths can be replaced)
Detection limit	1 pM (optimization condition)
Linear dynamic range	6 logs

Basic Parameter

Plate	6-384 well
Accessories	Injector
Shaking mode	Linear, annular, double annular
Incubation temperature	RT. +4 °C~45 °C
Temperature uniformity	±0.5 °C @37 °C
Software interface	Chinese / English
Screen size	10-inch
Operation method	Capacitive screen touch, mouse
Data capacity	10 GB
Compatibility	Support PC software, Win7 / Win10 64 bit
Network transmission	The test data report can be uploaded to the PC server through FTP
Instrument port	2 USB Type A ports, 1 USB Type B port, 1 Ethernet port, Rs232 bus interface (connected to the injector)
Power supply	AC 100-240 V, 50-60 Hz
Dimension (W×D×H)	420×487×318 mm
Weight	30 kg

Accessory Parameter

Automatic Injector	Quantity	1 / 2
	Dispensing volume	5-1000 µL, 1 µL increment
	Liquid injection speed	125-500 µL/s
	Accuracy	±1 µL @5-50 µL; ±2% @51-1000 µL
	Waste liquid collection	50 mL
Software	Analysis software	ReaderIt-II software

Ordering Information

Code	Product description
AS-19100-00	Feyond-F100 fluorescence microplate reader
AS-19011-01	ReaderIt-II PC analysis software
AS-19011-04	MSS-2 automatic injector
AS-19101-01	485-530 fluorescence filter (standard)
AS-19101-02	523-564 fluorescence filter (standard)
AS-19101-03	624-692 fluorescence filter (standard)

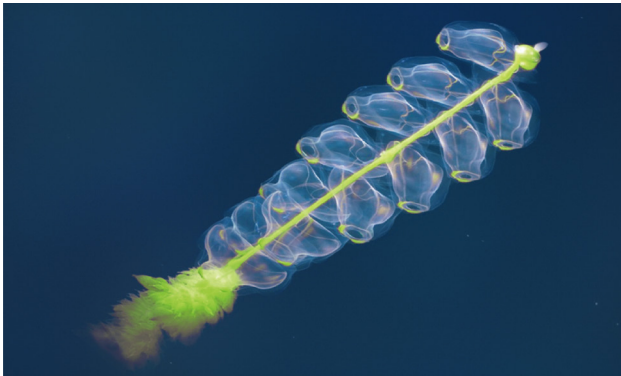
Feyond-L100

Luminescence Microplate Reader

Feyond-L100 is a compact and powerful luminescence microplate reader. It can provide a variety of microplate readings, and the fast reading speed combined with the automatic injector can effectively improve your work efficiency.



01 High-Sensitivity Detection



Feyond-L100 is equipped with a high-sensitivity luminescence detection module, which can realize a variety of throughput detection in 6-384-well plates, and can also accurately quantify micro samples.

02 Ultra-Low Well-to-Well Interference



The unique optical path design effectively reduces the signal cross-interference between holes, and the cross-talk is less than 0.05%.

03 Standard Filter

The luminescence detection function is equipped with two filters, 470 nm and 560 nm, which can effectively reduce the background noise and improve the detection sensitivity during the luciferase reporter gene detection process.

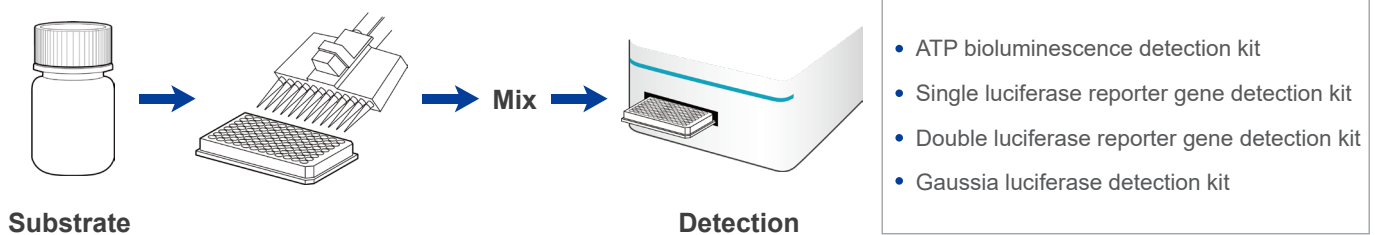
04 Low Noise PMT

Combined with low-noise PMT, the collected signal is more accurate, and the lowest detection limit can reach 5 amol/well (ATP).

05 Luminescence Kit

Allsheng luminescence series kits are based on the construction, transfection and expression of luciferase reporter gene vector. The luciferase can catalyze the conversion of the substrate and emit photons, and finally the detection system is used to obtain the detection data.

The reagent adopts an optimized reaction system, which is easy to prepare, easy to operate and has high accuracy.



Software Features

01 User Authority Classification

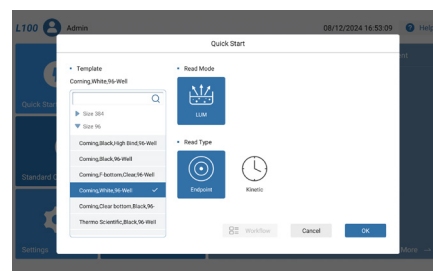
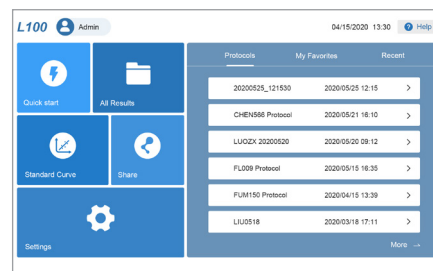
User permissions are divided into four levels, with clear permissions. The users have independent accounts and passwords to ensure the safety and confidentiality of experimental results.

02 Intuitive Interface Display

Intuitive selection of function modes, easy parameter setting. Programs and results are stored independently, making it easy to be found the required applications.

03 FTP (File Transfer Protocol)

Upload the data directly to a computer with a FTP server, and users can view the data results at any time in the authorized folder.



Specification

Model	Feyond-L100
Detector	PMT
Detection limit	5 amol/well (optimization condition)
Linear dynamic range	7 logs (flash ATP)
Crosstalk	≤0.05 %
Wavelength range	200-850 nm
Filter	470 nm, 560 nm

Basic Parameter

Plate	6-384 well
Accessories	Injector
Shaking mode	Linear, annular, double annular
Incubation temperature	RT+4 °C ~ 45 °C
Temperature uniformity	±0.5 °C @37 °C
Software interface	Chinese / English
Screen size	10-inch
Operation method	Capacitive screen touch, mouse
Data capacity	10 GB
Compatibility	Support PC software, Win7 / Win10 64 bit
Network transmission	The test data report can be uploaded to the PC server through FTP
Instrument port	2 USB Type A ports, 1 USB Type B port, 1 Ethernet port, Rs232 bus interface (connected to the injector)
Power supply	AC 100-240 V, 50-60 Hz
Dimension (W×D×H)	420×487×318 mm
Weight	30 kg

Accessory Parameter

Automatic Injector	Quantity	1 / 2
	Dispensing volume	5-1000 μ L, 1 μ L increment
	Liquid injection speed	125-500 μ L/s
	Accuracy	± 1 μ L @5-50 μ L; ± 2 % @51-1000 μ L
	Waste liquid collection	50 mL
Software	Analysis software	ReaderIt-II software

Ordering Information

Code	Product description
AS-19090-00	Feyond-L100 luminescence microplate reader
AS-19011-01	ReaderIt-II PC analysis software
AS-19011-04	MSS-2 automatic injector
AS-19051-01	Lum-check standardization light microplate
AS-19091-01	LUM-470 filter (standard)
AS-19091-02	LUM-560 filter (standard)

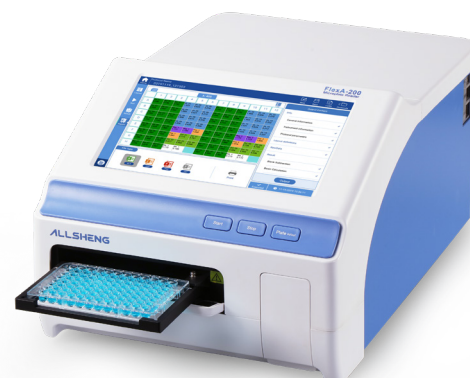
FlexA-200 / FlexA-200HT

Microplate Reader

FlexA-200 microplate reader is a high-quality microplate reader based on a monochromator with a wavelength range of 200~1000 nm. It has the advantage of flexible detection and does not need additional filters. It can be used for spectral scanning, endpoint method and kinetic detection. Suitable for 96-well plates and 384-well plates with and without lids. FlexA-200 can be shaken and incubated in microplates, and the incubation temperature is up to 45 °C.

It can be operated independently through the built-in software of the instrument, and also can be operated by the ReaderIt-II software. The software has the characteristics of intuitive interface, clear and flexible operation, which can work in both Chinese and English environments.

FlexA-200 can be used for a variety of applications, including nucleic acid and protein analysis, ELISA, enzyme activity detection, cytotoxicity and cell proliferation tests, apoptosis detection, microbial identification, bacterial concentration, etc.



Features

- **10-inch touch screen, can be used independently for the whole detection process, which is convenient to operate and easy to use**

FlexA-200 built-in software is designed for independent use of the instrument. With a 10-inch high-resolution touch screen and a graphical user interface, the editing of programs and template presets are very simple. In addition, support for USB data export is fast, convenient and easy to operate.

- **Complete functional ReaderIt-II enzyme data analysis software, which can meet most data processing needs**

ReaderIt-II is designed for FlexA-200. With intuitive graphical operation interface design, you can master various operations through simple training. A variety of built-in data processing methods, including quantitative curve fitting, qualitative analysis, kinetics calculation, user-defined equation, 4PL, and customized services are supported, which can increase the calculation method according to customer needs. The data can be exported to Excel with one click, or detailed results reports can be generated through the built-in tools.

- **200-1000 nm full wavelength design, 1 nm increments, basically meet all light absorption detection applications**

Wavelength selection is done by using an advanced monochromator system. Any wavelength between 200 to 1000 nm can be selected. Using the spectral scanning feature, the whole spectrum of a sample be scanned in 1 nm increments and measurement bandwidth at 2.5 nm to allow identification of the optimal measurement wavelength for a new assay. The built-in reference channel ensures that the accuracy of light intensity without preheating each time, and ensures consistent results under any measurement conditions. The self-test function of the instrument checks the key components such as light sources, detectors, and load positions to ensure the stability and reliability of the instrument operation.

- **Fast detection speed, only need time 8 s for 96-well whole microplate**

The detection speed of the microplate reader refers to the time it takes to complete the colorimetric determination. Under the FlexA-200 fast reading mode, only need time 8 s for 96-well whole microplate. The fast detection speed is conducive to improving the precision of detection, and can effectively avoid the difference in absorbance between each micropore due to different determination time during the determination process.

01 Choose Detection Wavelength Freely with Raster

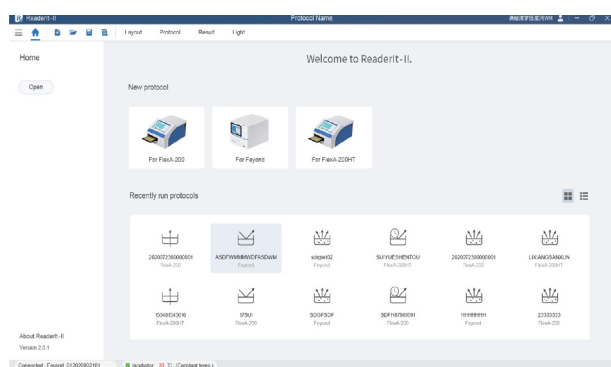
FlexA-200 adopts the xenon flash lamp as light source, which chooses the wavelength range from 200-1000 nm with 1 nm step by grating monochromator for the full spectrum scanning.

02 FlexA-200 Instrument Interface Can Be Used Independently for Rapid Detection



FlexA-200 built-in software is designed for independent use of the instrument. With a 10-inch high-resolution touch screen and a graphical user interface, the editing of programs and template presets are very simple. In addition, support for USB data export is fast, convenient and easy to operate.

03 Through PC Software, Advanced Detection Mode and Powerful Data Analysis Can Be Set (Optional)



- Intuitive graphical operation interface design.
- A variety of data analysis functions, including quantitative curve fitting, qualitative analysis, kinetics calculation and 4PL. The data can be exported to Excel with one click, or detailed results reports can be generated through the built-in tools.
- The built-in software and ReaderIt-II of the FlexA-200 instrument are both Chinese / English interfaces. Graphical user interface is convenient for customers to use.

04 FTP (File Transfer Protocol)

Upload instrument data directly to a computer with an FTP server, and users can view the data results at any time in the authorized folder.

05 Incubation Block Performance

Temperature control range: RT. +4 °C to 45 °C

Performance at 37 °C: average temperature difference between wells: ± 0.5 °C

temperature uniformity of well plate:
<1.0 °C (96-well plate without cover)

06 High Quality Data and Stable Performance

The optional system makes sure the high-quality data and stable performance of FlexA-200.

- Double beam optional system has the reference optional channel system, which makes the data stabler.
- After the instrument is started, the light source, grating, detector, microplate position, temperature measurement deviation, XY position, integrator, analog digital converter, etc. are automatically calibrated to ensure stable and reliable operation of the instrument.
- Long life xenon lamp which can be used for 10^9 times.

07 Cuvette Mode (FlexA-200HT Model)



- Independent cuvette slot
- Detection wavelength 200~1000 nm
- With incubation function, RT. +4 °C to 45 °C
- Independent cuvette software can be directly used for endpoint method, kinetics, spectral scanning and standard curve establishment

08 Liner Shaking Function of Microplate

- Background shaking mode can be executed during kinetics
- Three speed options: low speed, medium speed, high speed
5 Hz 11 Hz 20 Hz

09 u-Nano Ultra-Micro Plate (Optional)

- Quickly complete high-throughput quantification of micro nucleic acid and proteins without samples dilution.
- Independent software can quickly read the sample concentration and purity report.
- 1~16 samples can be detected at the same time, only 2~4 μL sample volume is needed.
- During continuous testing, you only need to wipe off the last batch of samples with dust-free paper.



Specification

Display	10-inch high-resolution capacitive touch screen
Light source	Xenon flash lamp / number of flashes>10 ⁹
Wavelength range	200 - 1000 nm
Wavelength accuracy	2 nm
Wavelength repeatability	0.2 nm
Optical system	Monochromator, 1 nm step
Reading range	0 - 4.0 OD
Bandwidth	<2.5 nm
Detection System	2 silicon photodetectors, one for measurement, one for reference
Linear @450 nm	$R^2 \geq 0.999$, [0.0-3.0 Abs]
Absorbance accuracy @450 nm	$\pm(1.0 \% + 0.003 \text{ Abs})$, (0~2.0 Abs); $\pm 2.0 \%$, (2.0~2.5 Abs)
Absorbance repeatability @450 nm	CV <0.5 % or SD <0.003 accurate mode; CV <1.0 % fast mode
Measuring speed	96-well plate: fast mode <8 s, accurate mode <28 s (end point method)
Shaking	Linear, 3 speeds adjustable
Temperature range & uniformity	RT. +4 °C to 45 °C; ± 0.5 °C @37 °C
User interface	Built-in software, independent use
Analysis software	ReaderIt-II software
Operation display	Touch screen input, Android system, 10-inch LCD display full board information, can be connected with keyboard and mouse
Internal storage	16 G storage, can store more than 20,000 data files
Port	1 type B USB interface, 2 type A USB interfaces, 1 network port
Robotic arm compatible	Temporarily incompatible
Power supply	DC 24 V 6.67 A
Dimension (W×D×H) mm	300×500×260 mm
Net weight	15.5 kg

Ordering Information

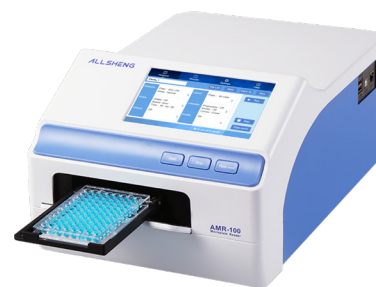
Code	Product description
AS-19010-00	FlexA-200 microplate reader
AS-19020-00	FlexA-200HT microplate reader
AS-19011-01	ReaderIt-II PC analysis software
AS-19011-02	u-Nano ultra-micro plate
AS-19011-03	ABS optical performance validation board

AMR-100 / AMR-100T

Microplate Reader

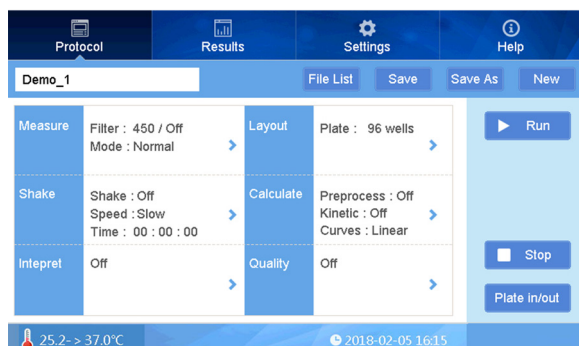
AMR-100 / AMR-100T is a high-quality light absorption microplate reader based on a filter, with a wavelength range of 340 nm~750 nm, suitable for scientific research and clinical applications. 7-inch touch screen color LCD display, no keyboard required, easy to use.

AMR-100T has additional incubation function, with temperature range is from RT. +4 °C to 50 °C.

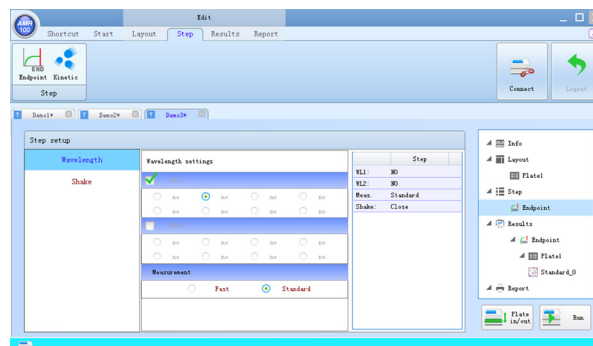


Features

- High-resolution 7-inch touch screen, simple and intuitive operation, no keyboard required.
- Visual layout, convenient and practical.
- The microplate reader is equipped with the standard control and data analysis software ReaderIt-I, which is convenient and quick for data detection.
- Powerful data analysis function and excellent result report, not only can run the analysis independently, but also run the analysis on the computer.
- Multiple software configuration, which can be used as a single machine or connected with a computer, and the results are exported in real time.
- Absorbance range: 0.0~4.000 Abs, meeting different measurement requirements.
- 8-position filter wheel, standard 4 filters, optional other filters.
- The built-in software can provide instrument control and data analysis, and can be directly connected to a U disk.
- The detection speed is fast, and the whole 96-well microplate detection can be completed within 6 seconds.
- Equipped with shaking plate function, adjustable shaking plate time and speed.



AMR-100T Operation Interface



ReaderIt-I Software Interface

Specification

Model	AMR-100	AMR-100T
Linear range	$R^2 \geq 0.995$ absorbance range 0~3.0 Abs	$R^2 \geq 0.995$ [0, 3 Abs]
Absorbance stability	≤ 0.005 Abs [0,3Abs] ≤ 2.0 % [3,4Abs]	$\leq \pm 0.005$ Abs [0,3Abs] ≤ 0.3 % [3,4Abs] ≤ 2.0 % [3,4Abs]
Absorbance accuracy	$\leq \pm 0.005$ Abs [0,2Abs] $\leq \pm 0.01$ Abs [2,3Abs] $\leq \pm 1.5$ % [3,4Abs]	$\leq \pm 0.005$ Abs [0,2Abs] $\leq \pm 1$ % [2,3Abs] $\leq \pm 1.5$ % [3,4Abs]
Incubation temperature range	/	RT+4 °C~50 °C
Temperature accuracy	/	± 0.5 °C @37 °C
Temperature uniformity	/	± 0.5 °C @37 °C
Net weight	10 kg	11 kg

Model	AMR-100 / AMR-100T
Display	7-inch high resolution capacitive touch screen
Light source	6 V, 10 W halogen lamp
Wavelength range	340 nm~750 nm
Optical filter	8-position filter wheel, standard 4 filters: 405 nm, 450 nm, 492 nm, 630 nm
Absorbance range	0-4.0 Abs
Resolution	0.001 Abs
Wavelength accuracy	$\leq \pm 2$ nm
Absorbance repeatability	CV ≤ 0.3 % [0, 3Abs); CV ≤ 1 % [3, 4Abs)
Sensitivity / detector	≥ 0.01 A / photodiode
User Interface	Built-in software, touch screen input, external mouse
Internal storage	Can store 1000 measurement programs and measurement results
Port	3×USB ports, connecting computer, printer and USB drive
Power supply	AC 100-240 V, 50-60 Hz, 2 A
Dimension (W×D×H)	295×440×225 mm

Ordering Information

Code	Product description
AS-16050-00	AMR-100 microplate reader
AS-16050-00	AMR-100T microplate reader
AS-16051-01	Optical filter 340 nm
AS-16051-02	Optical filter 380 nm
AS-16051-03	Optical filter 405 nm
AS-16051-04	Optical filter 415 nm
AS-16051-05	Optical filter 450 nm
AS-16051-06	Optical filter 492 nm
AS-16051-06	Optical filter 540 nm
AS-16051-08	Optical filter 570 nm
AS-16051-09	Optical filter 578 nm
AS-16051-10	Optical filter 590 nm
AS-16051-11	Optical filter 595 nm
AS-16051-12	Optical filter 630 nm
AS-16051-13	Optical filter 650 nm
AS-16051-14	Optical filter 690 nm
AS-16051-15	Optical filter 470 nm
AS-16051-16	Optical filter 490 nm

Code	Product description
AS-16051-17	Optical filter 510 nm
AS-16051-18	Optical filter 520 nm
AS-16051-19	Optical filter 532 nm
AS-16051-20	Optical filter 546 nm
AS-16051-21	Optical filter 560 nm
AS-16051-22	Optical filter 562 nm
AS-16051-23	Optical filter 600 nm
AS-16051-24	Optical filter 620 nm
AS-16051-25	Optical filter 646 nm
AS-16051-26	Optical filter 663 nm
AS-16051-27	Optical filter 700 nm
AS-16051-28	Optical filter 750 nm
AS-16051-50	Halogen lamp
AS-16051-51	Printer
AS-16051-52	Printer paper
AS-16051-53	ABS optical performance validation board
AS-16051-54	ReaderIt-I analysis software

AMR-Mini / AMR-Mini T

Microplate Reader

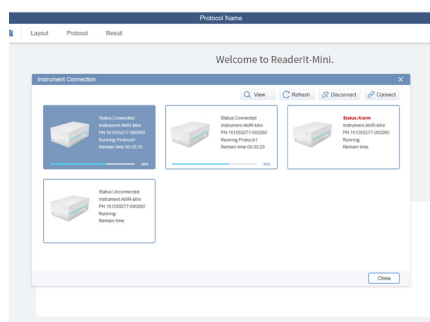
AMR-Mini series microplate reader is designed with compact shape and modern operating software, aiming to save space, facilitate operation and bring a new user experience.



Features

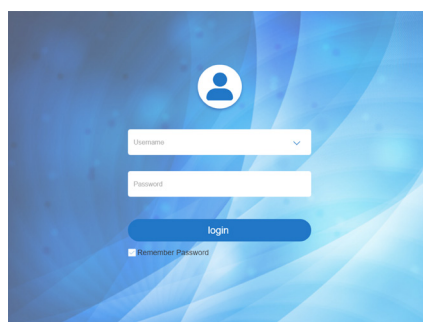
- Small space: About the size of two microplates, which can be measured in the modular workbench, anaerobic chamber or incubator.
- Independent removable light source and filter module: 450 / 630 nm and 405 / 492 nm, or any wavelength can be customized.
- Long life LED light source: Energy-saving, maintenance free and low power consumption.
- Reliable data guarantee: It has a reference optical path system to ensure stable and reliable detection data.
- Multiple detection modes: Can detect single wavelength, dual wavelength, kinetics, etc.
- AMR-Mini T additional shaking and incubation function.

ReaderIt-Mini Computer Analysis Software



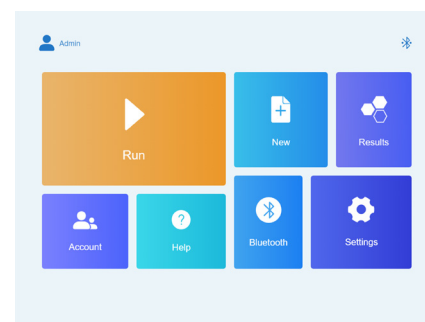
Can control multiple instruments at the same time to achieve central control management.

Multi-Level User Management



Independent accounts and passwords to keep the results confidential.

Intuitive Interface Display



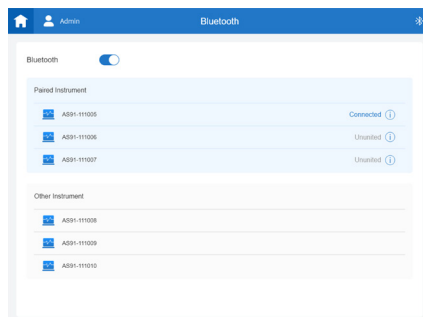
Intuitive selection of function modes, easy to complete parameter settings.

Multiple Data Analysis Algorithms



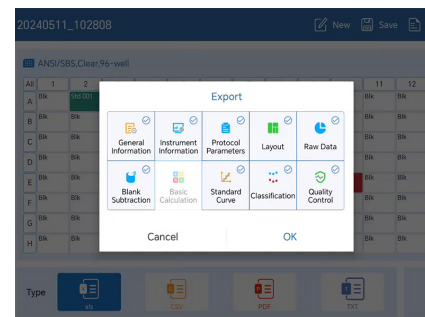
Including blank subtraction, standard curve, qualitative and quantitative analysis, quality control, kinetics analysis, etc.

APP Control



Support Bluetooth wireless and USB wired connection, can be installed in multiple pad computers or Android phones, simple and easy to use, flexible operation.

High Freedom of Data Storage



The data can be exported via USB flash disk or stored directly in local folder.

Specification

Detection type	Endpoint, kinetic
Plate type	96-well
Light source	LED×2
Detector	PD×9
Wavelength accuracy	≤±2 nm
Wavelength range	340~750 nm
Filter	450 / 630 nm, 405 / 492 nm
Measure range	0-4 Abs
Resolution	0.001 Abs
Linear	$R^2 \geq 0.995$ @[0.0 - 3.0 Abs]
Accuracy	≤±(0.5 % + 0.01 Abs) @[0.0-2.0 Abs] ≤±(1.0 % + 0.01 Abs) @[2.0-3.0 Abs]
Repeatability	[0,3 Abs) CV ≤0.5 %
Stability	≤0.005 Abs [0.0,2.0 Abs); ≤0.3 % [2.0,3.0 Abs)
Measure speed	Single wavelength <15 s / 96-well, dual wavelength <28 s / 96-well
Software	APP
Software interface	Chinese / English
Compatibility	Support PC software, Win7 / Win10 64 bit
Transmission	Bluetooth, USB cable
Instrument port	1 type-C interface, 1 USB A-port
Power input	USB 12 V 3 A
Dimension (W×D×H)	135×225×89 mm (AMR-Mini) 135×245×91 mm (AMR-Mini T)
Weight	2 kg (AMR-Mini) 2.5 kg (AMR-Mini T)

AMR-Mini T

Incubation temperature	RT. +4 °C~45 °C
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Ordering Information

Code	Product description
AS-16070-00	AMR-Mini
AS-16080-00	AMR-Mini T
AS-16051-01	Optical filter 340 nm
AS-16051-02	Optical filter 380 nm
AS-16051-03	Optical filter 405 nm
AS-16051-04	Optical filter 415 nm
AS-16051-05	Optical filter 450 nm
AS-16051-06	Optical filter 492 nm
AS-16051-07	Optical filter 540 nm
AS-16051-08	Optical filter 570 nm
AS-16051-09	Optical filter 578 nm
AS-16051-10	Optical filter 590 nm
AS-16051-11	Optical filter 595 nm
AS-16051-12	Optical filter 630 nm
AS-16051-13	Optical filter 650 nm

Code	Product description
AS-16051-14	Optical filter 690 nm
AS-16051-15	Optical filter 470 nm
AS-16051-16	Optical filter 490 nm
AS-16051-17	Optical filter 510 nm
AS-16051-18	Optical filter 520 nm
AS-16051-19	Optical filter 532 nm
AS-16051-20	Optical filter 546 nm
AS-16051-21	Optical filter 560 nm
AS-16051-22	Optical filter 562 nm
AS-16051-23	Optical filter 600 nm
AS-16051-24	Optical filter 620 nm
AS-16051-25	Optical filter 646 nm
AS-16051-26	Optical filter 663 nm
AS-16051-27	Optical filter 700 nm
AS-16051-28	Optical filter 750 nm

Microplate Reader Series - Selection Guide

Multi-Mode Microplate Reader

			
Model	Feyond-A300	Feyond-A400	Feyond-A500
Absorbance (monochromater)	✓	✓	✓
Fluorescence (filter)	✓	✓	✓
Luminescence	✓	✓	✓
Time-resolved fluorescence	-	✓	✓
Fluorescence polarization	-	-	✓
u-Nano plate detection	✓	✓	✓
Xenon lamp	✓	✓	✓
Injector (optional)	✓	✓	✓
Analysis software (optional)	PC (Reader It-II)	PC (Reader It-II)	PC (Reader It-II)
Operation method	10-inch touch screen	10-inch touch screen	10-inch touch screen
Dimension (mm)	420×550×386	420×550×386	420×550×386
Weight (kg)	33	33	33

Microplate Reader

					
Model	FlexA-200/200 HT	AMR-100/100T	AMR-Mini/MiniT	Feyond-F100	Feyond-L100
Type	Absorbance	Absorbance	Absorbance	Fluorescence	Luminescence
Absorbance (monochromater)	✓	-	-	-	-
Absorbance (filter)	-	✓	✓	-	-
Fluorescence (filter)	-	-	-	✓	-
Luminescence	-	-	-	-	✓
u-Nano plate detection	✓	-	-	-	-
Cuvette	✓	-	-	-	-
Light source	Xenon lamp	Halogen lamp	LED	Xenon lamp	-
Injector (optional)	-	-	-	✓	✓
Analysis software (optional)	PC (Reader It-II)	PC (Reader It-I)	-	PC (Reader It-II)	PC (Reader It-II)
Operation method	10-inch touch screen	7-inch touch screen	10-inch tablet PC (optional)	10-inch touch screen	10-inch touch screen
Dimension (mm)	300×500×260	295×440×225	135×225×89 (Mini) 135×245×91 (MiniT)	420×487×318	420×487×318
Weight (kg)	15.5	10 / 11	2 / 2.5	30	30

Esan-Gene 496 / 696

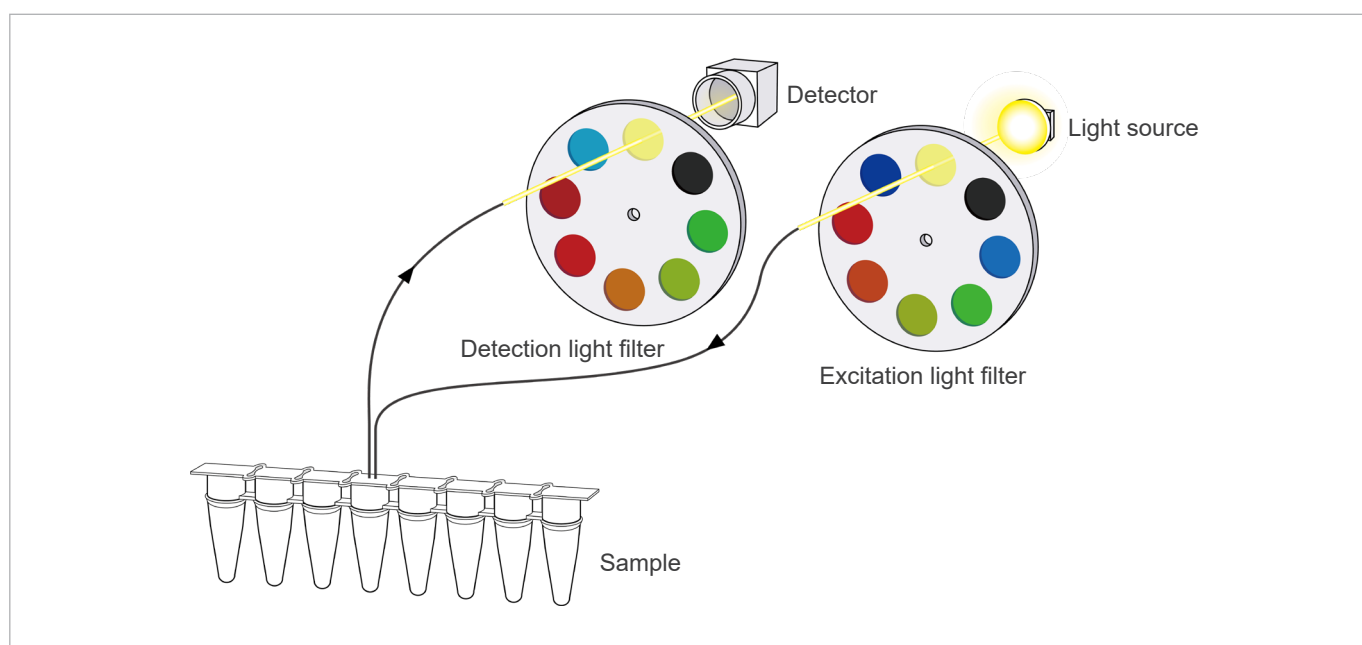
Real-Time PCR System

Esan-Gene 496 / 696 real-time PCR system adopts mature thermoelectric refrigeration technology, brand-new light source and light path design. The unique constant-current power and multi-zone independent temperature control method ensure more rapid, correct and stable fluorescence quantitative analysis of the product, while maintaining its excellent performance in low energy consumption. The product is modularized with various configurations to choose from. Meanwhile, it has been added with functions including independent temperature control, low-temperature storage of sample at 4 °C, and automatic dehumidification.

It's mainly applied in gene expression, genotyping (detection), cloning, mutation, methylation analysis, sequencing, medicine, forensic medicine and applied science.



CMOS Imaging Photoelectric Detection



- Top imaging technology was adopted to collect 96-well fluorescent signals without detection time difference. Fast detection, single channel detection need only 1 second.
- Long-life LED light source: adopting maintenance-free long-life LED light source, no need to replace the light source regularly, and the light intensity distribution is uniform.
- The excitation and detection channels adopt independent filter wheels. The filter can be switched quickly, and the channels can be freely combined, which can cope with multiple detection experiments without expanding the channel.
- Using optical fiber conduction to improve the fluorescence signal strength, reduce the optical conduction loss, and eliminate the edge effect in the optical path.

Dye

Dye name

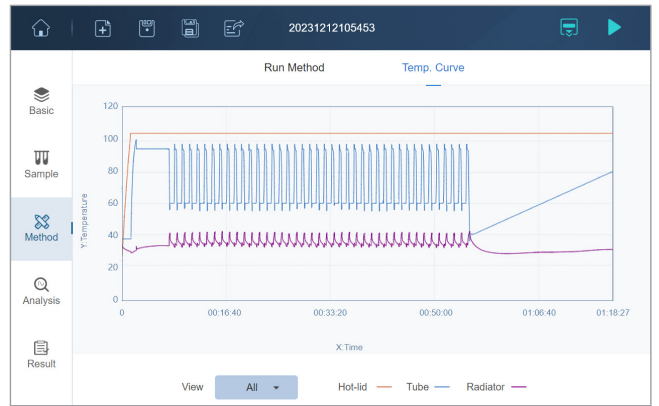
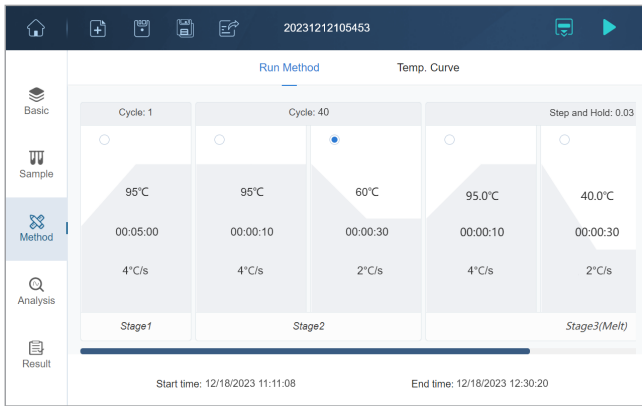
Channel

- ☒ CH1:(470-520nm)
 ☐ CH2:(530-565nm)
- ☐ CH3:(570-615nm)
 ☐ CH3:(630-665nm)
- ☐ CH5:(685-725nm)
 ☐ CH6:(470-615nm)

OK

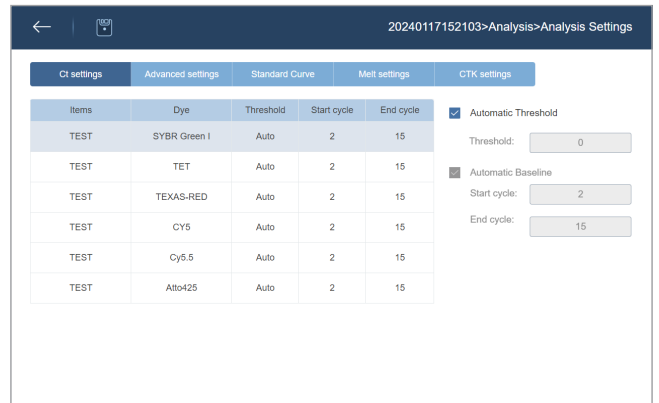
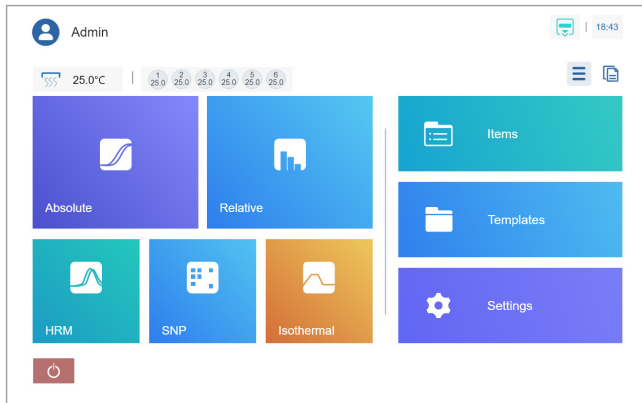
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Precise Temperature Control Technology

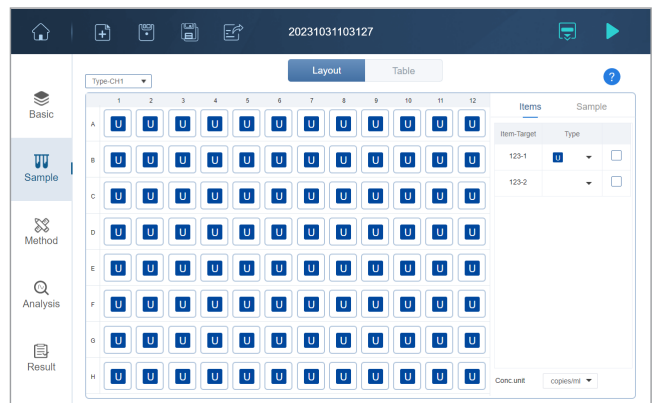


- The multi-zone thermal cycle block has precise independent temperature control and unique block temperature compensation technology. It can set different reaction conditions, with fast reaction speed, high temperature uniformity, and fast heating speed.
- The thermo lid is adjustable with high sealing to prevent reagent volatilization.
- Equipped with consumable placement inspection function, automatic pop-up sample warehouse design, and unique anti-pinch design, improving the safety of use.

Humanized Software



- Real-time monitoring, automatic distinguishing and calculation of positive and negative results, meeting various analysis modes such as qualitative / quantitative, genotyping, isothermal amplification, melting curve, etc.
- 10.1-inch touch screen with Windows system, can complete settings, detection, analysis, saving and other operations. The operation is simple and fast, without the need to connect to PC, saving space. Equipped with USB and network port for easy data export and greater flexibility.
- The innovative Ct value algorithm uses the linear fitting method of multi-derivative feature points to calculate the Ct value without the need for reference dyes, optimizing the experimental process and improving the experimental efficiency.
- Unique optical path ROI region identification algorithm, can achieve automatic instrument ROI calibration and optical fiber position inspection.



Specification

Model	Esan-Gene 496 / 496A	Esan-Gene 696 / 696A
Detection channel / applied dyes	F1: FAM, SYBR Green I, etc. F2: HEX, JOE, VIC, etc. F3: ROX, TEXAS-RED F4: Cy5, Quasar-670	F1: FAM, SYBR Green I, etc. F2: HEX, JOE, VIC, etc. F3: ROX, TEXAS-RED F4: Cy5, Quasar-670 F5: Cy5.5 F6: Can be customized, default is FRET
Applicable centrifuge tube (496 / 696)	0.2 mL 96-well plate, single tube, 8-strip tube	
Applicable centrifuge tube (496A / 696A)	0.1 mL 96-well plate, single tube, 8-strip tube	
Sample system size	10~100 μ L	
Linear range	$10^0 \sim 10^{10}$ Copies/ μ L	
Min. detection range	1 Copy	
Excitation light source	High power white LED	
Detecting element	High-performance CMOS	
Ct repeatability	CV \leq 1 %	
Sample linearity (Ct)	r \geq 0.999	
Temp. range	4~99.9 $^{\circ}$ C	
Temp. control mode	Block control / tube control	
Average heating rate	4.5 $^{\circ}$ C/s	
Average cooling rate	2.5 $^{\circ}$ C/s	
Temp. uniformity	\pm 0.2 $^{\circ}$ C @95 $^{\circ}$ C	
Temp. accuracy	\pm 0.15 $^{\circ}$ C	
Temp. control precision	0.1 $^{\circ}$ C	
Melting temp.	Minimum differentiation 0.1 $^{\circ}$ C	
Gradient mode	6 gradient temperature control	
Gradient temp. range	1~40 $^{\circ}$ C	
Thermo lid temp.	30~110 $^{\circ}$ C	
Display screen	10.1-inch touch screen	
Dimension (W*D*H)	298 mm \times 530 mm \times 430 mm	
Input power	100~240 VAC 50~60 Hz	
External port	USB (Type A) \times 3, LAN \times 1	
Wireless function	Expandable wireless transmission function, support LIS function	
Data export format	Excel, PDF	

Ordering Information

Code	Product description
AS-30050-00	Esan-Gene 496 real-time PCR system, suitable for 0.2 mL centrifuge tube
AS-30060-00	Esan-Gene 696 real-time PCR system, suitable for 0.2 mL centrifuge tube
AS-30070-00	Esan-Gene 496A real-time PCR system, suitable for 0.1 mL centrifuge tube
AS-30080-00	Esan-Gene 696A real-time PCR system, suitable for 0.1 mL centrifuge tube

Esan-Gene 162 / 164

Real-Time PCR System

Esan-Gene 162 / 164 real-time PCR system, with 2-channel / 4-channel 16-well, portable and convenient for on-site rapid inspection and quarantine, disease prevention and control, food safety, agriculture, forestry and biochemistry and other occasions, is a real-time detection portable qPCR.



Features

Excellent Performance and Stable Results

- LED light source: maintenance-free, high brightness, high stability.
- High detection throughput: can support up to 4 channels, 16 samples per run, efficient and accurate.
- High-sensitivity photodetector to ensure stable performance and results.

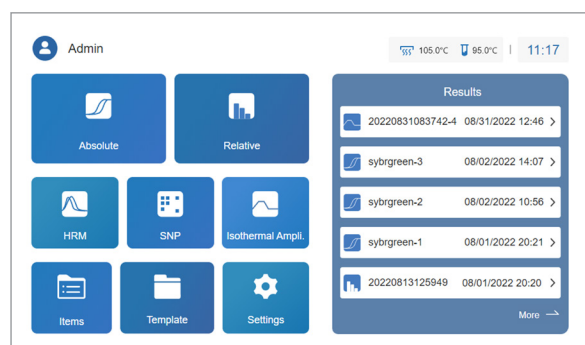
Diverse Analysis and Wide Adaptability

- Qualitative / quantitative detection, melting curve, genotyping, isothermal amplification and other modes of analysis.
- Negative and positive results are automatically interpreted without other calculations.

Efficient and Convenient for Stand-Alone Use

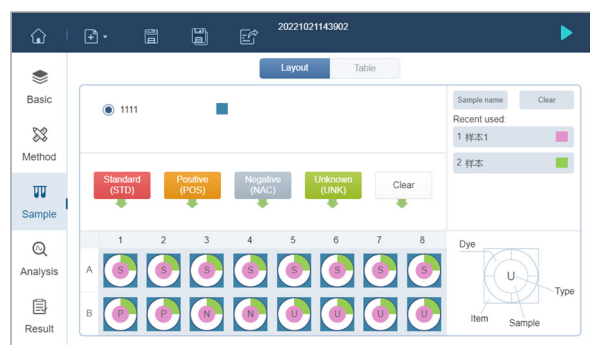
- 7-inch touch screen, windows operating system, simple and convenient operation.
- A single machine can complete operations such as setting, testing, judging, and saving.
- Equipped with USB, network port, data download is convenient, and can be directly connected to the printer for printing.
- Small size and light weight for easy handling and portability, high adaptability.

01 Function Layout Is Simple and Easy to Understand



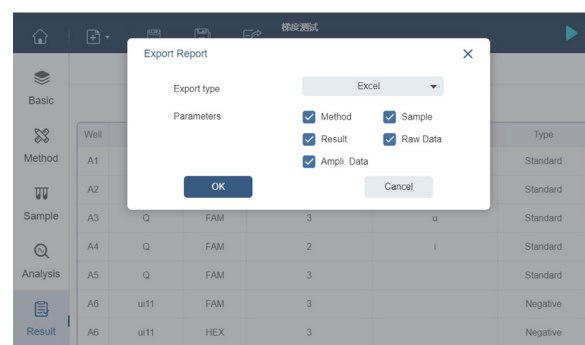
- Function partition, simple operation and easy to use.
- Detailed running result records, easy to review the experimental results.

02 Diversified Program Settings



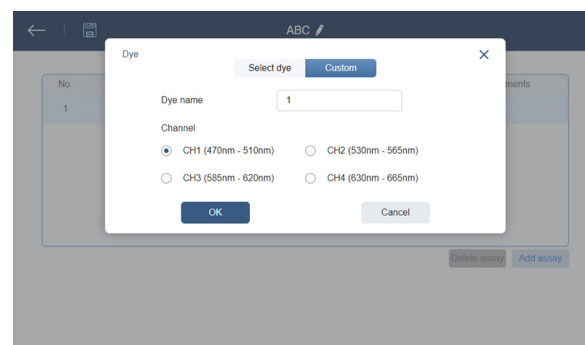
- Layout directly on the machine.
- Import the program from USB drive.
- Convenient project library calling.

03 Easy and Fast Data Export



- Multiple data export types PDF, Excel, etc.
- Comprehensive experimental parameter arrangement.

04 The Instrument Can Be Set to 4 Channels and a Variety of Test Item Types



- 4 different wavelengths can be selected.
- Open software, can match reagents from different manufacturers.
- A variety of parameter settings are available, which can detect various items such as F1 FAM, SYBR Green I, etc., F2 HEX, JOE, VIC, etc., F3 ROX, etc., F4 Cy5, etc.

Specification

Model	Esan-Gene 162	Esan-Gene 164
Number of channels	Channel 1: 470 nm-510 nm Channel 2: 530 nm-565 nm	Channel 1: 470 nm-510 nm Channel 2: 530 nm-565 nm Channel 3: 585 nm-620 nm Channel 4: 630 nm-665 nm
Channel parameters (by instrument model)	F1: FAM, SYBR GreenI etc. F2: HEX, JOE, VIC etc.	F1: FAM, SYBR GreenI etc. F2: HEX, JOE, VIC etc. F3: ROX etc. F4: Cy5 etc.
Detection throughput	16-well	
Sample volume	15-100 μ L	
Consumable	0.2 mL thin wall transparent 8-strip tube 0.2 mL thin wall transparent single tube	
Linear range	1-10 ¹⁰ copies	
Linearity	r \geq 0.999	
Excitation light source	LED (maintenance free)	
Detection element	PD	
Temperature control mode	Block / tube	
Block temperature range	4~99.9 $^{\circ}$ C	
Temperature control method	Semiconductor chilling plate	
Temperature accuracy	\pm 0.15 $^{\circ}$ C	
Temperature control precision	0.1 $^{\circ}$ C	
Temperature uniformity	\pm 0.2 $^{\circ}$ C @95 $^{\circ}$ C	
Maximum heat-up rate	6 $^{\circ}$ C/s	
Maximum cooling rate	6 $^{\circ}$ C/s	
Average heat-up rate	4 $^{\circ}$ C/s	
Average cooling rate	4 $^{\circ}$ C/s	
Melting temperature	Minimum difference 0.1 $^{\circ}$ C	
Thermo lid temperature	30~110 $^{\circ}$ C	
Input power	100-240 V AC 50-60 Hz	
Maximum power	200 W	
Security protection and alarm	Support short circuit, broken circuit and over temperature protection and alarm	
Net weight	5.9 kg	
Dimension (W×D×H)	200×297×148 mm	

Ordering Information

Code	Product name	Model	Remark
AS-30010-00	Real-time PCR system	Esan-Gene 162	2-channel
AS-30020-00	Real-time PCR system	Esan-Gene 164	4-channel

Gene-8C / 8C2

Isothermal Fluorescence PCR

Gene-8C isothermal fluorescence PCR is mainly used for isothermal amplification and real-time fluorescence detection of samples. It is widely used in rapid detection of pathogenic microorganisms (including viruses, bacteria, fungi, mycoplasma, parasites, etc.), clinical disease diagnosis, food hygiene inspection and environmental monitoring. It can also be used for sex identification of animal embryos and detection of genetically modified food. The humanized operating system can directly interpret the results. The supporting APP software makes the experiment truly realize real-time detection. The design of the built-in battery makes it possible to use the instrument outdoors.

Gene-8C2 isothermal fluorescence PCR is a small and portable instrument that adds dual-channel (mode selection) fluorescence excitation and detection on the basis of Gene-8C.



Features

01 Dual-Channel Fluorescence Excitation Detection (Gene-8C2)

02 Outdoor Use, Convenient and Portable

Small size, equipped with rechargeable batteries, make the detection real-time and practical. Portable experimental box, equipped with other necessary instruments, to improve experimental efficiency.

03 Provide Multiple Data Export Methods

Use USB and WIFI connection to transfer the experimental data and results to your computer, or save the data directly to the cloud through WIFI (it needs to be developed according to customer needs).

04 View the Results on the Computer, Sort out and Share Data

Once the data is exported, you can use PC software to view data in various formats and sort out experimental data.

05 Easy to Use "Data Printer" Option

You can directly print the results from the instrument through the USB printer interface. You can also use PC software to print and export the results from the computer.

06 Easier Operation

- The positive and negative results of the experiment can be directly interpreted without other calculations.
- With a 7-inch touch screen, a single machine can complete the setting, detection, interpretation and saving.
- Humanized software function, dual channel design to adapt to different reagent testing needs.

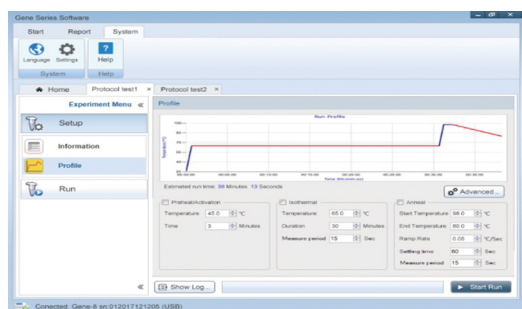
07 More Intelligent Software System

- The instrument software is simple and clear, which can be easily mastered by new users.
- Android APP software, which can control the operation of monitoring instruments.
- It can be operated by an external computer to meet various customer needs.
- With mobile APP real-time data transmission, it is a real real-time detection system.
- Data statistics function, recording experimental parameters and data, convenient for tracing and searching.
- Real-time detection, automatic identification of negative and positive, melting curve and other functions.

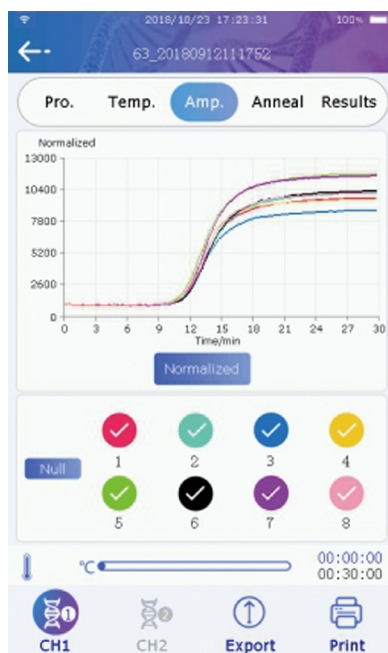
08 More Reliable Results

- The side optical path detection system can detect at least 20 μL reaction system (Gene-8C) and 10 μL reaction system (Gene-8C2).
- Precise temperature control, the temperature difference between wells is less than 0.15 $^{\circ}\text{C}$, and the temperature control accuracy reaches 0.1 $^{\circ}\text{C}$.
- Real time monitoring of fluorescent signals to avoid subjective errors caused by manual interpretation.

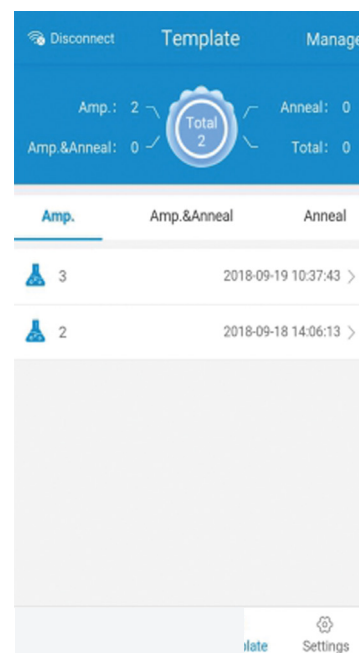
Software



PC Software Interface



Built-in Software



Android Mobile's APP Software

Specification

Model		Gene-8C	Gene-8C2	
Optical path system	Channel	One	Two	
	Excitation wavelength	Ex 470 nm / LED	Ex 470 nm / LED	Ex 525 nm / LED
	Detection wavelength	Em 535 nm / PD	Em 535 nm / PD	Em 605 nm / PD
Sample tray	Sample size	0.2 mL–8-well (8-strip tube available)		
	Sample Volume	15-150 μ L (20-30 μ L recommended)		
	Applicable dye	FAM, SYBR Green 1, HEX		
Temperature control	Temperature range ($^{\circ}$ C)	15 $^{\circ}$ C-99 $^{\circ}$ C		
	Heating speed ($^{\circ}$ C)	2 $^{\circ}$ C/s		
	Cooling speed ($^{\circ}$ C)	2 $^{\circ}$ C/s		
	Temperature uniformity ($^{\circ}$ C)	± 0.15 $^{\circ}$ C @39 $^{\circ}$ C		
	Temperature accuracy / temperature control precision ($^{\circ}$ C)	± 0.2 $^{\circ}$ C / 0.1 $^{\circ}$ C		
		Thermo lid		
Optical path system	Excitation light source / detection mode	LED / real-time fluorescent signal detection		
	Result display mode	1. Negative / positive; 2. peak time; 3. melting T_m value		
Function	Interpretation mode	1. Construct amplification curve judgment; 2. The instrument automatically analyzes and determines positive or negative		
	Touch screen	7-inch touch screen		
	Control software	Instrument software, PC software, supporting app (Android system)		

Power supply	Input power	100~240 V, 50~60 Hz
	Lithium battery	With charging battery (optional)
Weight	2.5 kg (without battery)	
Dimension (WxDxH)	145×305×100 mm	

Ordering Information

Code	Product description
AS-20010-00	Gene-8C isothermal fluorescence PCR
AS-20020-00	Gene-8C2 isothermal fluorescence PCR
qPCR Reagents	
RS-QP01001	qPCR probe master mix (probe method)
RS-QP01002	U+qPCR probe master mix (probe method)
RS-QP01003	WSSV qPCR kit (probe method)
RS-QP01004	IHHNV qPCR kit (probe method)
RS-QP01005	EHP qPCR kit (probe method)
RS-QP01006	One step qRT-PCR probe master mix (probe method)
RS-QP01007	U+One Step qRT-PCR probe master mix (probe method)
RS-QP01008	TSV qPCR kit (probe method)
Cell-free Recombinant Protein Expression Kit	
RS-IP04001	Non-dialysis escherichia coli cell-free recombinant protein expression kit
RS-IP04002	Dialysis escherichia coli cell-free recombinant protein expression kit
RS-IP04003	High-throughput dialysis escherichia coli cell-free recombinant protein expression kit

Aquatic Virus Series

RS-IP02001	WSSV isothermal amplification PCR master mix kit
RS-IP02002	IHHNV isothermal amplification PCR master mix kit
RS-IP02003	EHP isothermal amplification PCR master mix kit
RS-IP02004	TSV isothermal amplification PCR master mix kit
RS-IP02005	SHIV isothermal amplification PCR master mix kit

Animal Origin Doping Series

RS-IP03001	Porcine-origin gene isothermal amplification PCR kit
RS-IP03002	Chicken-origin gene isothermal amplification PCR master mix kit
RS-IP03003	Duck-origin gene isothermal amplification PCR master mix kit
RS-IP03004	Bovine-origin gene isothermal amplification PCR master mix kit
RS-IP03005	Sheep-origin gene isothermal amplification PCR master mix kit

Isothermal Amplification PCR Reagent

RS-IP01001	Isothermal PCR master mix
RS-IP01002	Isothermal PCR master mix (RNA template)

Ecos-Gene Series

Automated Nucleic Acid Extraction and PCR System

Ecos-Gene series automated nucleic acid extraction and PCR system includes three models: Ecos-Gene 1, Ecos-Gene 2 and Ecos-Gene 4, which can handle 1, 2 and 4 samples at the same time. Various models can be freely combined, and up to 16 samples can be extracted and tested at the same time.

The instrument includes 4 fluorescence detection channels, which can achieve multiple detection projects of one sample at the same time, and strict self-checking mechanism ensures the accuracy of the results. In addition, instrument innovatively adds a quantitative detection function, which can freely select the output qualitative or quantitative detection results according to actual needs.

The instrument is small and flexible with 10.5-inch touch screen. Equipped with intuitive interface and stable operation software, it's an ideal choice for on-site fast detection!



Features

01 Closed Detection

Disposable independent card box design, each sample corresponds to an independent card box, which avoids contamination between samples, and excellent sealing avoids pollution caused by aerosol leakage.

02 Automatic Detection

Adopting reagent freeze-drying technology, reagent card box completes the pre-packaged nucleic acid extraction reagent and PCR reaction reagent before leaving the factory, without manual addition. The operator only needs to manually add samples and magnetic beads and the manual operation time is ≤ 2 min, truly realizing "sample-to-result".

03 Multi-Channel Detection

Each sample has 4 channels for detection. The excitation-emission wavelengths are 470-510 nm, 530-565 nm, 585-620 nm and 630-665 nm, respectively. Multiple detection items can be detected simultaneously.

04 Intuitive Software

Visualized interface and user authorization management. The administrator has the highest authority.

05 Open and Compatible

Ecos-Gene automated nucleic acid extraction and PCR system has good adaptability and high software openness. Adopting open software design, which can be adapted to all kinds of magnetic bead extraction and detection kits on the market.

06 Multiple Detection Types

- Instrument end software, simple and clear, easy to use.
- Android mobile app can control and monitor instrument operation.
- Can be operated through an external computer to meet various customer needs.
- Mobile APP real-time data transmission, a true real-time monitoring system.
- Data statistics function records experimental parameters and data for easy tracking and searching.
- Real-time monitoring, automatic determination of negative and positive, melting curve and other functions.

Operation Process



Step 1

Add samples and magnetic beads



Step 2

Detect with reagent box



Step 3

Select a program and run.
Check results after the detection

Nucleic Acid Chamber Integrated Cartridge

The cartridge is mainly composed of four parts: base, reaction chamber, PCR reaction area and top cover. It relies on the rotation of the bottom piston valve to achieve liquid transfer between different chambers.

First, add samples and magnetic beads in the sample chamber to complete the lysis and binding steps of the nucleic acid extraction. Then complete three times of washing and purification of nucleic acid in the washing chamber and elute in the elution chamber. Finally mix with the reagents in the PCR reaction area to complete the PCR amplification reaction.



The instrument is small and portable. Customers can choose different throughput instruments according to the needs, and each throughput operates independently without affecting each other, which can be expandable.

Ecos-Gene 1 / Ecos-Gene 2 / Ecos-Gene 4 can be freely selected, and up to 16 sample channels can be controlled at the same time.

Specification

Model		Ecos-Gene 1	Ecos-Gene 2	Ecos-Gene 4
Throughput		1	2	4
Consumable well number		4 reagent chambers, supporting pre-packaged liquid reagents 1 sample chamber with sealing cover 1 detection well, supporting PCR amplification and fluorescence detection		
Sample chamber capacity		Maximum capacity is 3 mL, the working volume is about 2.5 mL		
Magnetic method		Bottom magnetic absorption		
Extraction temperature performance	Heating method	Lysis well and elution well can be heated		
	Heating range	RT. ~120 °C		
	Temperature accuracy	±0.5 °C		
Extraction performance	Extraction time	According to the reagent scheme, generally 25~30 min for each sample		
	Extraction consistency	CV ≤5 %		
PCR amplification	Average heating rate	Block from 50 °C~95 °C: ≥6 °C/s		
	Maximum heating rate	Block from 50 °C~95 °C: ≥10 °C/s		
	Average cooling rate	Block from 95 °C~50 °C: ≥4.5 °C/s		
	Maximum cooling rate	Block from 95 °C~50 °C: ≥8 °C/s		
	Temperature accuracy	≤±0.2 °C		
	Block temperature control accuracy	≤±0.2 °C 55 °C		
Detection block	Fluorescence detection channel	4 (470-510 nm, 530-565 nm, 585-620 nm, 630-665 nm)		
Applicable fluorescent dyes		FAM / HEX / ROX / CY5		
Detection time		According to the reagent scheme, generally 35 ~ 50 min for each sample		
Sterilization		Each sample channel is equipped with an independent UV sterilization lamp		
Software operation		Windows system software, supporting personalized function customization		
Report output		Support connecting external printer and printing test reports		
External interface		1×RS232 port; 1×B-USB port; 1×LAN port		
Information management		Support external code scanner, which can input sample / reagent information Expandable LIS system connection Expandable cloud database connection		

Ordering Information

Code	Product description
AS-28010-00	Ecos-Gene 1 automated nucleic acid extraction and PCR system
AS-28020-00	Ecos-Gene 2 automated nucleic acid extraction and PCR system
AS-28030-00	Ecos-Gene 4 automated nucleic acid extraction and PCR system

Ecos-Gene 6400

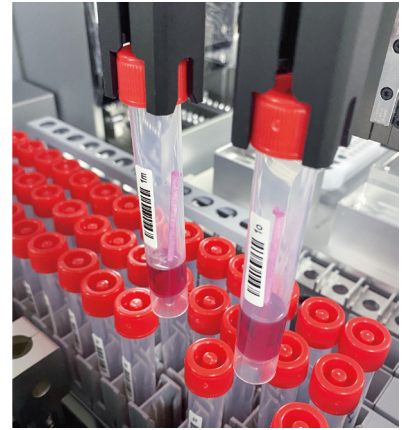
Automated Nucleic Acid Extraction and PCR System

Ecos-Gene 6400 automated nucleic acid extraction and PCR system integrates all functional divisions of PCR detection laboratory. It is a one-stop workstation that integrates the functions of information input, reagent dispensing, sample preparation, nucleic acid extraction based on magnetic bead method, system construction, cover centrifuge, qPCR detection, result analysis, and etc. The whole process from sample loading to report output does not require manual intervention. It can realize sample-to-result and provide you with a new solution for molecular diagnosis.



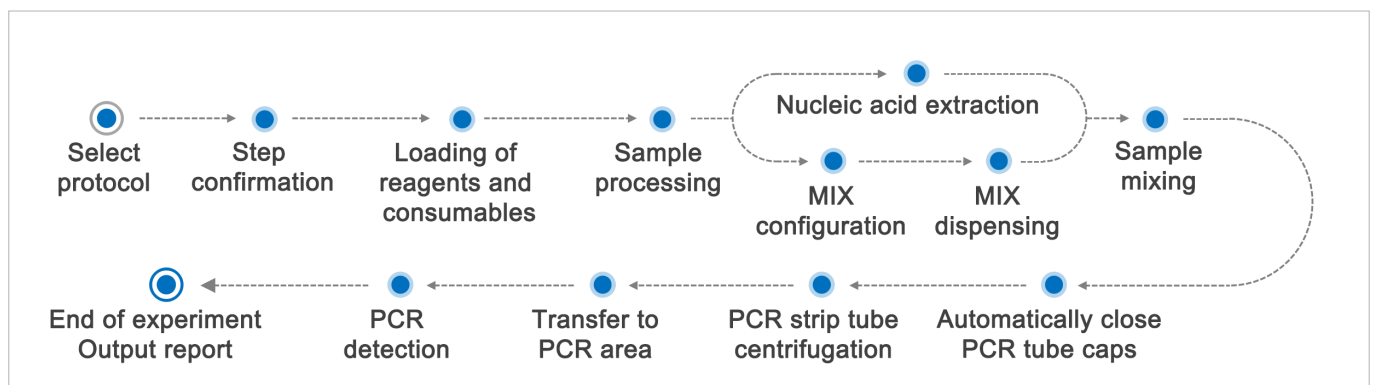
Original Tube Loading with Scanning Function to Quickly Input Sample Information

The instrument has a built-in automatic opening and closing structure, which supports original tube loading and dispensing, reducing the manual pre-processing time. In addition, the instrument has a built-in scanning structure, which can directly record the sample number to ensure the integrity of information.



Whole Process Automation, Sample-to-Result

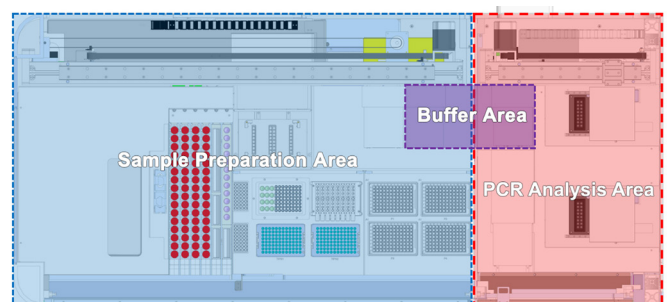
The operator only needs to prepare consumables and place sample in advance. Select the corresponding protocol to achieve the whole process automation from sample preparation, nucleic acid extraction to PCR detection.



Multiple Designs to Effectively Avoid Cross-contamination

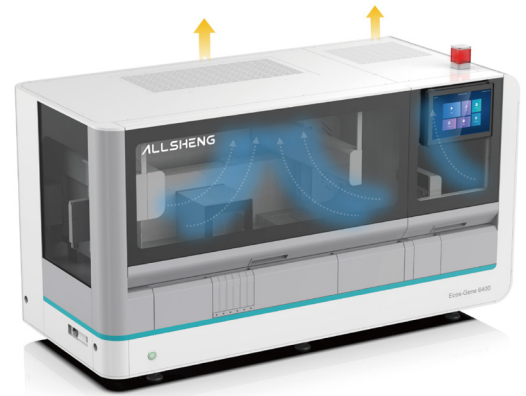
01 Partition Design, Physical Isolation

Based on the design requirements of the PCR laboratory, this instrument is divided into three independent areas: sample preparation area, buffer area and PCR analysis area. Each area is separated by a sealing division plate and a sealing door, achieving physical isolation of each area.

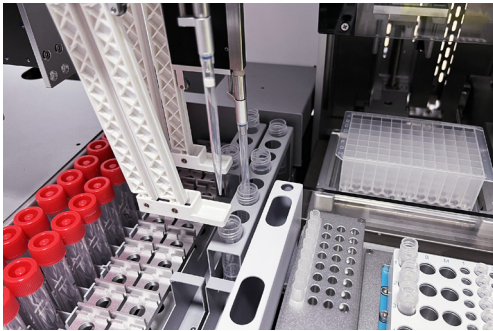


02 Air Pressure Control, Unidirectional Airflow

Built-in air pressure sensor, real-time monitoring of air pressure in the three zones; software automatically controls the negative pressure filter system to achieve decreasing air pressure from the sample preparation area, buffer area, PCR analysis area in order to avoid cross-contamination by convection. In addition, the sample preparation area and PCR analysis area are equipped with HEPA on the top, and the frequency conversion filter fan is selected to achieve internal air pressure control by flexibly adjusting the air speed. The external exhaust gas is treated by liquid filter station (optional) to prevent pollution of the external environment.



03 Anti-dropping Design of Pipettor



The lower part of the pipettor is equipped with a liquid tray, which can effectively prevent the contamination of samples and reagents caused by liquid dripping.

04 Disposable PCR Tube Caps



Special PCR tube cap design, combined with the gripper, can cover the PCR tube caps in time to prevent problems such as liquid leakage and aerosol pollution in the process of centrifugation, transfer and PCR detection.

Open Consumable Design to Reduce The Cost of Use

Except for the magnetic rod sleeves and PCR tube caps, Ecos-Gene 6400 supports standard consumables, maximizing the openness of consumables.

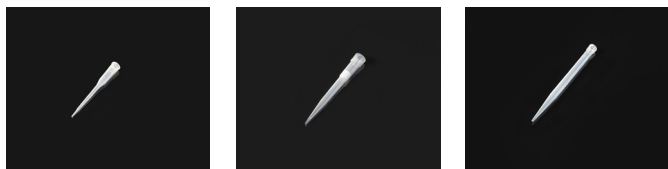
Standard Consumables



5 mL sampling tube 10 mL sampling tube 5 mL blood sampling tube



96 deepwell plate 0.2 mL 8-strip PCR tube 2 mL storage tube



50 µL tip 200 µL tip 1000 µL tip

Special Consumables

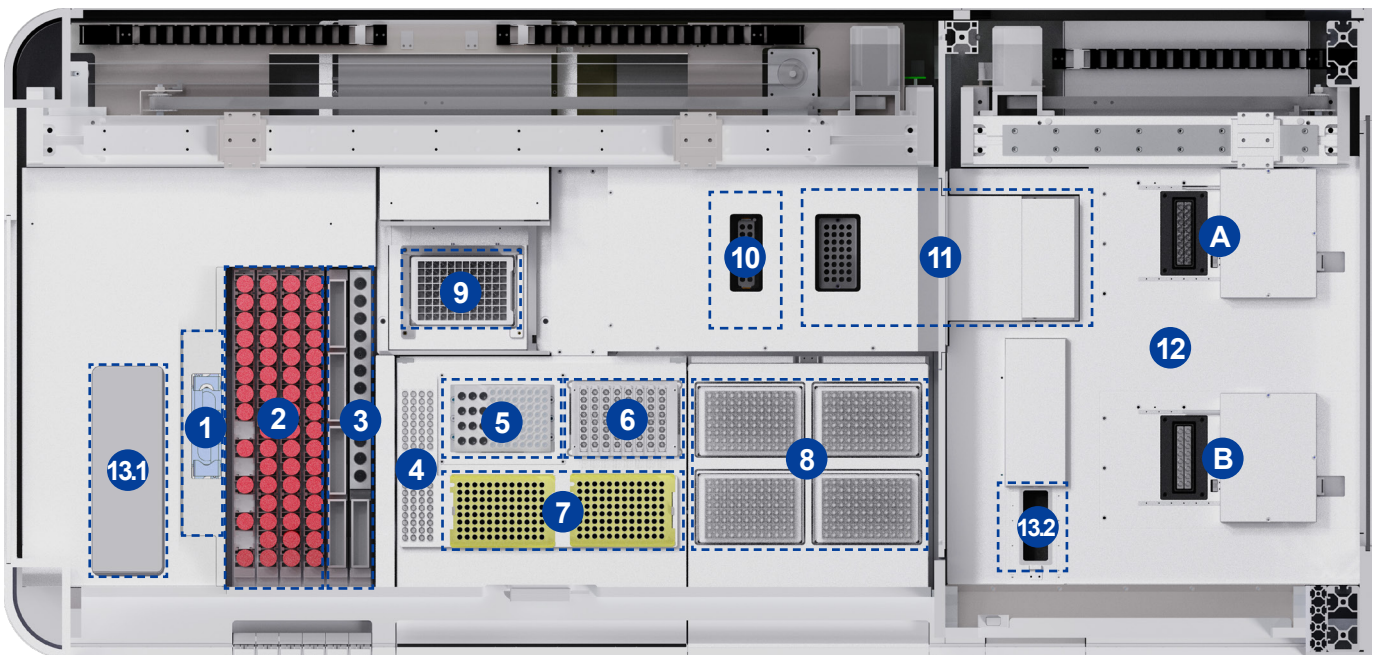


Magnetic rod sleeve



PCR tube caps

Plate Layout



1 Sample Opening Area

With the cap opening electric claw, achieve automatic cap opening of samples.

2 Sampling Area

Used for loading samples, up to 64 samples in one run.

3 Reagent Area

Used for placing unpackaged nucleic acid extraction reagents, 60 / 100 mL×5+2 / 5 / 10 mL×12.

4 PCR Tube Caps

Used for placing the PCR tube caps, which can be automatically took with the moving robot arm.

5 PCR Reagent Area

Refrigeration unit for storing and configuring PCR reagents and Mix, 2 mL×12+0.2 mL 8-strip×8.

6 Magnetic Rod Sleeve Holder Area

Used for placing a magnetic rod sleeve holder, the magnetic rod sleeves are automatically loaded during the operation.

7 Tip Area

Used for loading tips, support 1 box of 100 μ L tips and 1 box of 200 μ L tips.

8 Nucleic Acid Extraction Kit Area

Used for loading deepwell plates for nucleic acid extraction, support up to 4×96 deepwell plates.

9 Nucleic Acid Extraction Area

Up to 16 samples can be extracted in one run.

10 Centrifuge Area

Used for PCR Mix and centrifugation after sample mixing to reduce liquid hanging walls and fully mix.

11 Sample Buffer Area

Used for transferring the configured PCR reaction system, sealed design to avoid regional contamination (similar to the PCR laboratory transfer window).

12 PCR Detection Area

Two independent PCR detection units (A and B), each unit can detect 16 samples.

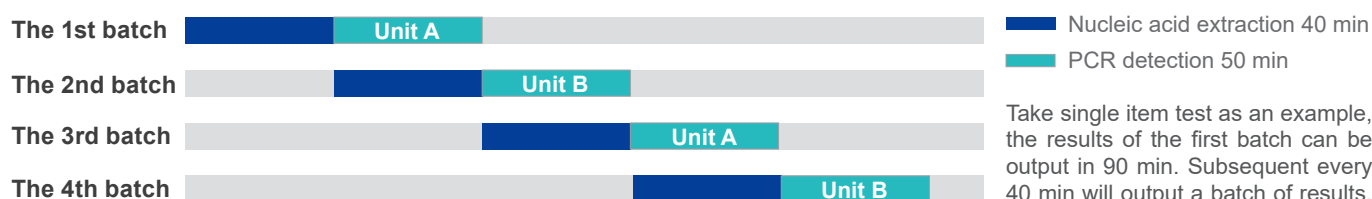
13.1 Tip off Box

Used for storing waste tips.

13.2 Waste Area

Can place testing completed PCR strip tubes.

Work Efficiency



Take single item test as an example, the results of the first batch can be output in 90 min. Subsequent every 40 min will output a batch of results, and 544 samples can be detected in 24 hours.

Specification

Model		Ecos-Gene 6400
Throughput		1-64
Sample tube		Support the original tube loading of sampling tube / blood sampling tube
Extraction temperature performance	Heating range	37 °C~120 °C
	Temperature accuracy	±0.5 °C
Extraction performance	Extraction time	According to the reagent solution, generally 15~30 min / time
	Extraction uniformity	CV ≤5%
PCR amplification	Average heating rate	Block 50 °C~95 °C: ≥5 °C/s
	Maximum heating rate	Block 50 °C~95 °C: ≥10 °C/s
	Average cooling rate	Block 95 °C~50 °C: ≥5 °C/s
	Maximum cooling rate	Block 95 °C~50 °C: ≥8 °C/s
	Temperature accuracy	≤±0.2 °C
	Block temperature control accuracy	≤±0.2 °C 55 °C
PCR thermo lid	Temperature range	RT. +5 °C~105 °C
	Temperature control accuracy	±0.5 °C
Detection block	PCR reaction system	15~100 µL
	Fluorescence detection channel	5 channel
	Applicable fluorescent dyes	FAM / HEX / ROX / CY5 / CY5.5, etc.
	PCR kinetic range	1-10 ¹⁰ Copies / µL
	Detection time	According to the reagent solution, generally 35~50 min / time
UV sterilization		One UV sterilization lamp is set in the sample preparation area, buffer area and analysis area respectively, which can be controlled independently
HEPA		An independent HEPA component is set in the sample preparation area and analysis area respectively
Software operation		Windows system software, supporting personalized function customization
Instrument port		1×B-USB port and 1×Ethernet port
Information management		Support external code scanner, which can input sample / reagent information
		Expandable LIS system connection
		Expandable cloud database connection

Ordering Information

Code	Product description
AS29010-00	Ecos-Gene 6400 automated nucleic acid extraction and PCR system
AS29011-01	Magnetic rod sleeve
AS29011-02	PCR tube caps
AS29011-03	96 deepwell plate
AS-TT-200-N	200 µL, Allsheng tip, transparent, boxed
AS-TT-200-NL	200 µL, Allsheng tip, transparent, boxed, low adsorption
AS-TT-200-NS	200 µL, Allsheng tip, transparent, boxed, sterile
AS-TT-200-NSL	200 µL, Allsheng tip, transparent, boxed, sterile, low adsorption
AS-TTF-200-NS	200 µL, Allsheng tip, transparent, boxed, sterile, filter element
AS-TTF-200-NSL	200 µL, Allsheng tip, transparent, boxed, sterile, filter element, low adsorption
AS-TT-1000-N	1000 µL, Allsheng tip, transparent, boxed
AS-TT-1000-NL	1000 µL, Allsheng tip, transparent, boxed, low adsorption
AS-TT-1000-NS	1000 µL, Allsheng tip, transparent, boxed, sterile
AS-TT-1000-NSL	1000 µL, Allsheng tip, transparent, boxed, sterile, low adsorption
AS-TTF-1000-NS	1000 µL, Allsheng tip, transparent, boxed, sterile, filter element
AS-TTF-1000-NSL	1000 µL, Allsheng tip, transparent, boxed, sterile, filter element, low adsorption

Nano-100 / 300 / 400A / 500

Micro-Spectrophotometer



Nano-100



Nano-300



Nano-400A



Nano-500

Features

- **User-Friendly Software, Easy to Use**

Graphical software operation, more intuitive interface, the results can be directly exported, easy to save, view and output data.

- **Micro-Volumes Measuring**

Only 0.5 μ L-2 μ L sample is needed for each test. After the measurement, the samples can be recovered and the precious samples can be studied with confidence.

- **Long Life Light Source, Do Not Need to Warm Up**

Xenon flash, life span is 10⁹ (up to 10 years). No preheating, direct use, ready to test in any time.

- **Nano-500 Added Fluorometer Mode, Accurate Quantitative Nucleic Acid Concentration**

For samples with concentrations lower than 2 ng/ μ L, fluorometer mode can be selected and the minimum detection limit can be up to 0.5 pg/ μ L.

- **High Concentration Detection**

The maximum concentration of the detectable sample is 15000 ng/ μ L (Nano-500, dsDNA as an example), and the sample basically does not need to be diluted.

- **Convenient and Easy to Use**

Directly point the sample on to the sample plate without dilution or cuvette. The sample concentration can be measured as 50 times of the conventional uv-visible photometer, and the result can be directly output as the sample concentration.

- **Fast Detection**

No dilution or cuvette needed in the detection process; 5 s can complete the test and display the result.

- **Single Machine Operation, Convenient and Efficient**

Nano-100 / Nano 300 / Nano-500 is full-wavelength micro-spectrophotometer, and Nano-400A is a fixed wavelength ultra-micro nucleic acid analyzer.

Nano-100 Micro-Spectrophotometer

- Nano-100 is a micro-spectrophotometer with full wavelength (200-800 nm).
- The detectable sample is 50 times that of conventional UV / Vis spectrophotometer, and maximum detection concentration up to 4500 ng/μL (dsDNA).
- High resolution CCD array detector, 5 s can complete the detection, display the results.
- Long life pulse xenon lamp light source.
- Need to connect PC computer to run detection, data saving, printing, sorting are very convenient.

Nano-300 Micro-Spectrophotometer



- Nano-300 is a full wavelength (200~800 nm) micro-spectrophotometer based on Nano-100, which adds detection of bacterial cell density (OD600) without a computer.
- Android system, 7-inch capacitive touch screen, optimized APP software.
- Newly designed OD600 optical path detection system, new cuvette mode, convenient for the concentration detection of bacteria, microorganisms and other culture solutions.
- High resolution CCD array detector, 5 s can complete the detection, display the results.



- With its own high-definition touch screen and control program, it can be detected without a computer connection.
- Long life pulse xenon light source, intelligently identify the user's usage. No operation within 5 minutes, the light source will be automatically turned off to prolong the service life.
- The test data is transferred to your computer via USB flash memory for easy data sorting, analysis and storage.
- Easy-to-use data to printer option, can print reports directly through the built-in printer.
- Automatic detection and automatic blank function: automatically detect the sample concentration when the detection arm is lowered, which greatly shortens the detection time of large batches of samples.

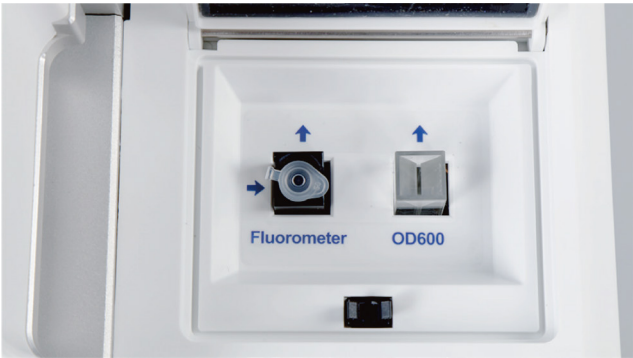
Nano-400A Micro-Spectrophotometer

- Nano-400A is a fixed wavelength (260 nm, 280 nm, 365 nm) ultra-micro nucleic acid analyzer, which is used for routine analysis of micro sample testing and is a supplement to the full wavelength instruments Nano-100, Nano-300 and Nano-500.
- Android system, 7-inch capacitive touch screen, no computer connection required.
- LED light source, long life component.
- It is mainly used to detect the concentration and purity of nucleic acid, and to detect the concentration of nucleic acid at 260 nm, the concentration of protein at 280 nm. The 260 / 280 ratio is used to measure the purity.
- Newly designed OD600 optical path detection system, new cuvette mode, convenient for the concentration detection of bacteria, microorganisms and other culture solutions.
- The test data is transferred to the computer via USB for easy sorting and analysis.
- Easy-to-use data printing options, can print the report directly through the built-in printer.

Nano-500 Micro-Spectrophotometer

- Nano-500 adds the following functions on the basis of the Nano-300:
 - A. Increase the optical path by 0.05 mm to make the detection of nucleic acid concentration up to 15,000 ng/μL.
 - B. Fluorescence detection function is added to accurately determine the concentration of DNA samples below 5 ng/μL. In the detection of double-stranded DNA, the detection limit can be up to 0.5 pg/μL (equivalent to increasing the function of Fluo-100 fluorometer produced by our company).
 - C. Automatic detect after put down the arm.
- The patented motor lifting structure makes the liquid column stretch more gentle, preventing the liquid column from breaking due to structural problems. In addition, the structure can effectively solve the instability of reading caused by high concentration sample, especially suitable for precise quantification of protein samples.
- Android system, 7-inch capacitive touch screen, optimized APP software.
- To detect the concentration of bacteria and microorganism are more convenient with the OD600 function.
- High resolution CCD array detector, 6s can complete the detection and display results.
- Equipped with HD touch screen, no need to connect computer.
- Long life pulse xenon lamp light source, intelligent identification of user usage. The light source will auto off after 5 minutes without any operation to extend service life.
- The detection data can be transferred to the computer through USB, which is convenient for data processing and analysis.
- Easy-to-use data printing options, can print the report directly through the built-in printer.
- Automatic detection and automatic blank function: automatically detect the sample concentration when the detection arm is lowered, which greatly shortens the detection time of large batches of samples.

New Fluorescence Detection Function for Nano-500



Fluorescence detection combined with fluorescence quantitative analysis kit, able to accurately quantify the concentration of DNA, RNA and protein through the specific binding of fluorochrome with target material, and the minimum limit is 0.5 pg/μL (dsDNA). Nano-500 can be compatible with common fluorescence quantitative reagent to provide users with the maximum convenience and minimum detection cost.

Fluorescence Detection Mode (Can Be Customized)

Model	Channel	Excitation wavelength	Emission wavelength
Nano-500U (optional)	UV	365±20 nm	420-480 nm (60 nm)
Nano-500 (standard)	Blue	460±20 nm	525-570 nm (45 nm)
Nano-500G (optional)	Green	525±20 nm	575-640 nm (65 nm)
Nano-500R (optional)	Red	625±20 nm	670-725 nm (55 nm)

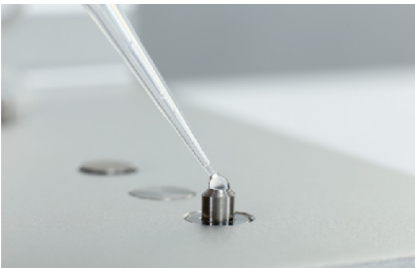
Fluorescence Detection Mode - Specification

Light source	LED	Repeatability	≤1.5 %
Dynamic range	5 orders of magnitude	Stability	≤1.5 %
Linearity	R²≥0.995	Sensitivity	dsDNA: 0.5 pg/μL
Detector	Photodiode	Measurement speed	3 s (once)

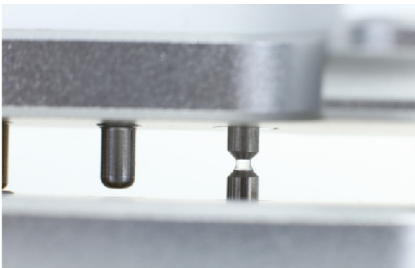
Applications of Different Fluorescence Channels

Channel	Excitation wavelength	Common reagent	Application
UV channel	365±20 nm	Hoechst 33258, 4-MU, EnZCheK Caspase	Nucleic acid quantification, plant GUS reporter gene detection, apoptosis detection
Blue channel	460±20 nm	PicoGreen®, oligreen, RiboGreen®, GFP, Protein, Fluorescein	dsDNA, ssDNA, GFP, gene detection, fluorescein detection, protein quantification
Green channel	525±20 nm	Rhodamine, Cy3, RFP Vybrant Cytotoxicity	Rhodamine detection, Cy-3 fluorescence labeling detection, RFP gene detection, cytotoxicity detection
Red channel	625±20 nm	Cy5, Quant-iT RNA	Cy-5 fluorescence labeling detection, RNA quantification

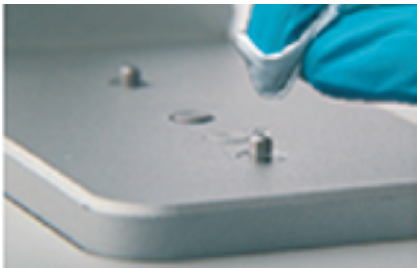
Operation Process



Adding sample

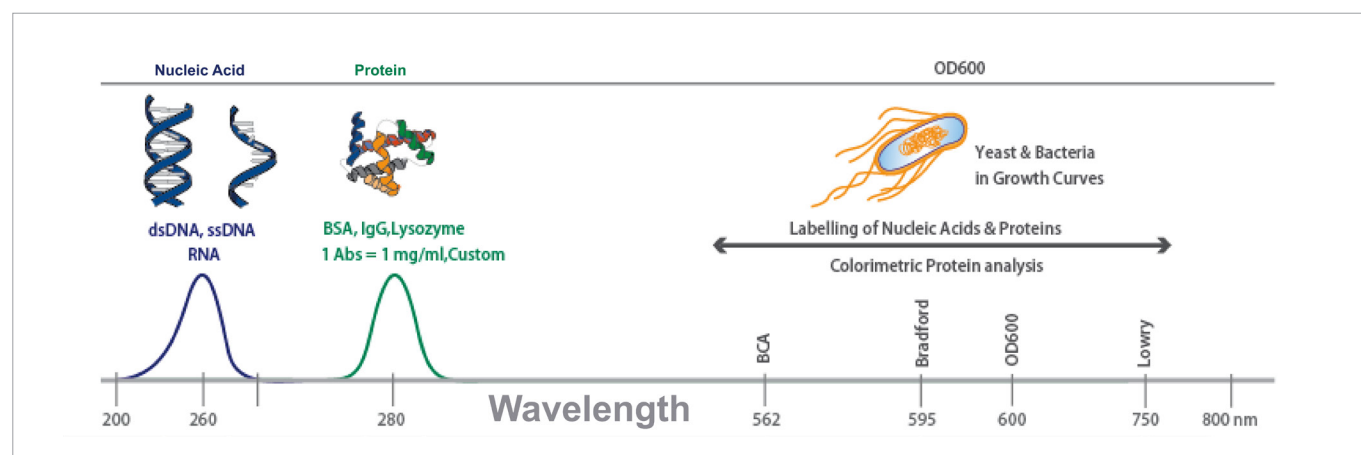


Measuring sample



Quick and easy cleaning

Application



Specification

Model	Nano-100	Nano-300	Nano-400A	Nano-500
Wavelength range	200~800 nm	200~800 nm	260 nm, 280 nm	200~800 nm
Minimum sample size	0.5~2.0 μ L	0.5~2.0 μ L	1.0~2.0 μ L	0.5~2.0 μ L
Path length	0.2 mm 1.0 mm	0.2 mm 1.0 mm	0.5 mm	0.05 / 0.2 mm 1.0 mm
Light source	Xenon flash lamp	Xenon flash lamp	UV LED	Xenon flash lamp
Detector type	2048-linear CCD array	2048-linear CCD array	UV-silicon photocell	2048-linear CCD array
Wavelength accuracy	1 nm	1 nm	/	1 nm
Spectral resolution	≤ 3 nm	≤ 3 nm	≤ 8 nm	≤ 3 nm
Absorbance precision	0.003 Abs	0.003 Abs	0.005 Abs	0.003 Abs
Absorbance accuracy	1 % (7.332 Abs at 260 nm)	1 % (7.332 Abs at 260 nm)	2 % (7.332 Abs at 260 nm)	1 % (7.332 Abs at 260 nm)
Absorbance range	0.04~90 A	0.04~90 A	0.2~50 A	0.04~300 A
Nucleic acid detection range	2~4500 ng/ μ L (dsDNA)	2~4500 ng/ μ L (dsDNA)	10~2500 ng/ μ L (dsDNA)	2~15000 ng/ μ L (dsDNA)
Measurement time	< 5 s	< 5 s	< 6 s	< 6 s
Dimension (W×D×H) mm	200×250×166	210×268×181	208×280×186	208×320×186
Weight	2.6 kg	2.8 kg	2.0 kg	3.6 kg
Sample pedestal material	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber	Aluminum alloy and quartz fiber
Operating voltage	DC 24 V 2 A	DC 24 V 2 A	DC 24 V 2 A	DC 24 V 2 A
Operating power	20 W	25 W	25 W	25 W
Standby power	5 W	5 W	5 W	5 W
Software compatibility	Win 7, Win XP, Win 8	Android system	Android system	Android system

Cuvette Mode (OD600 Measurement)

Light source	/	LED	LED	LED
Wavelength range	/	600 \pm 8 nm	600 \pm 8 nm	600 \pm 8 nm
Absorbance range	/	0~4 A	0~4 A	0~4 A

Fluorometer Mode

Sensitivity	/	/	/	dsDNA: 0.5 pg/ μ L
Linear dynamic range	/	/	/	R ² \geq 0.995
Repeatability	/	/	/	\leq 1.5 %

Ordering Information

Code	Product description
AS-11010-00	Nano-100 micro-spectrophotometer, DC 24 V 5 W
AS-11020-00	Nano-300 micro-spectrophotometer, DC 24 V 5 W
AS-11050-00	Nano-400A micro-spectrophotometer, DC 24 V 5 W
AS-11060-00	Nano-500 micro-spectrophotometer (standard), DC 24 V 5 W
AS-11070-00	Nano-500U micro-spectrophotometer (optional), DC 24 V 5 W
AS-11080-00	Nano-500G micro-spectrophotometer (optional), DC 24 V 5 W
AS-11090-00	Nano-500R micro-spectrophotometer (optional), DC 24 V 5 W
AS-11021-01	Cuvette for Nano-300, Nano-400A, Nano-500

Fluo-200 / Fluo-800

Fluorometer

The new fluorometer Fluo-200 and Fluo-800 are used for high sensitivity quantitative analysis of DNA, RNA and protein.

Fluo-800 is available to do the fluorescence detecting for 8 samples in simultaneous. High precision detection method reduces the variation effectively. Easy and humanized software, intuitive user interface and rapid test method greatly shorten the testing time.



Fluo-200



Fluo-800

Fluo-200

- Simple and intuitive----7 inch color touch screen
- Fast detection----fast & accurate quantification of DNA, RNA & protein in 5 s
- Accurate quantification----high accuracy with only 1-20 μL samples
- High sensitivity----the lowest detection limit can be 0.1 $\text{pg}/\mu\text{L}$ (dsDNA)
- Dual channel detection----adapt to more dyes
- Stores results----up to 20000 programs can be stored
- Data save----save sample data as a CSV or PDF file
- Data export----be exported directly to U disk, or connected to an external printer
- Open reagent application----can match reagents from different manufacturers



Fluo-800

- Simple and intuitive----7 inch color touch screen
- High throughput----8 samples per run
- Fast detection----8 samples can be detected in 6 s
- Accurate quantification----high accuracy with only 1-20 μL samples
- High sensitivity----the lowest detection limit can be 1 $\text{pg}/\mu\text{L}$ (dsDNA)
- Stores results----up to 20000 programs can be stored
- Dual channel detection----adapt to more dyes
- Data export----be exported directly to U disk, or connected to an external printer
- Data save----save sample data as a CSV or PDF file
- Open reagent application----can match reagents from different manufacturers



01 User Authorization Management

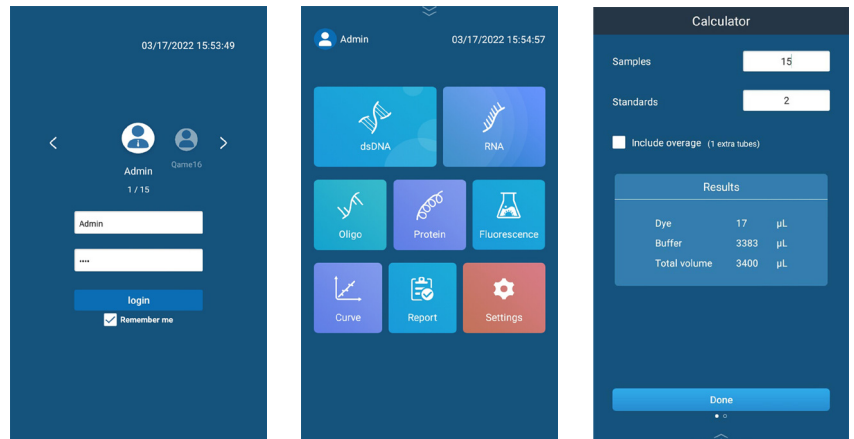
User independent account and password to ensure program stability.

02 Intuitive Interface Display

Modular layout makes function display more intuitive.

03 Reagent Concentration Calculator

Quickly generate working solution preparation dosage, shorten reagent preparation time.



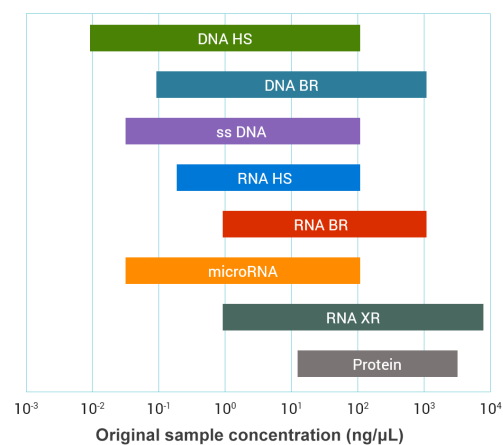
04 Sample Concentration Analysis

To use the calculator to show how the assay range changes. It can help to select the appropriate assay based on sample volume and estimated sample concentration for the most accurate quantitation.

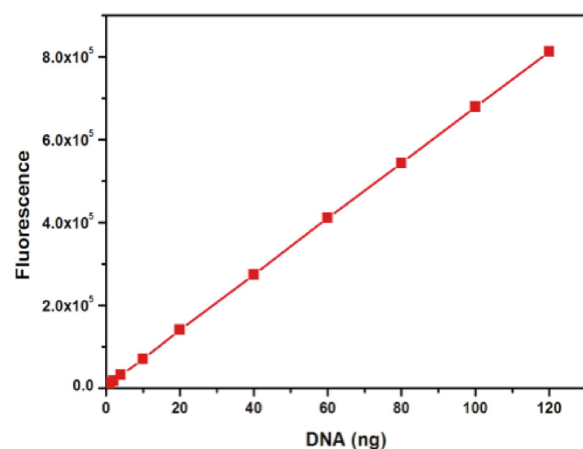
05 NGS Workflow Calculator

Use the molarity calculator to convert to molarity based on nucleic acid length and measured concentration. Required weight, concentration, or molarity can be easily normalized via the normalization calculator, which replaces spreadsheet calculations for standard normalization during sequence library preparation.

Performance Test



① Common samples and quantitative ranges



② Allsheng® high sensitivity dsDNA quantitation kit with linear quantitation range of 0.2–100 ng

Specification

Model	Fluo-200	Fluo-800
Light source	LED	LED
Excitation filter	Blue: 460±20 nm Red: 625±20 nm	Blue: 460±20 nm Red: 625±20 nm
Emission filter	Green: 525-570 nm (45 nm) Red: 670-725 nm (55 nm)	Green: 525-570 nm (45 nm) Red: 670-725 nm (55 nm)
Detector	Photodiode	Photodiode
Throughput	1	8
Sample tube type	0.5 mL PCR tube	0.2 mL PCR tube
Linear	$R^2 \geq 0.995$	$R^2 \geq 0.995$
Linear range	5 orders of magnitude	4 orders of magnitude
Sensitivity (detection limit)	<0.1 pg/μL (dsDNA HS)	<1 pg/μL (dsDNA HS)
Measurement time	≤5 s / sample	≤6 s / 8 samples
Input power	24 V 2 A	24 V 2 A
Operating voltage	100-240 V @50-60 Hz	100-240 V @50-60 Hz
External port	USB (Type A) ×2, USB (Type B) ×1, LAN ×1	USB (Type A) ×2, USB (Type B) ×1, LAN ×1
Display	7-inch touch screen	7-inch touch screen
Dimension (D×W×H)	286 mm×161 mm×61 mm	286 mm×161 mm×75 mm
Weight	1.5 kg	2 kg
Storage capacity	20000 programs	20000 programs

Ordering Information

Code	Product description
AS-18050-00	Fluo-200 fluorometer (Blue & Red)
AS-18060-00	Fluo-800 fluorometer (Blue & Red)
RS-FL 0101-S	Allsheng® high sensitivity dsDNA quantitation kit (100 assays)
RS-FL 0101-M	Allsheng® high sensitivity dsDNA quantitation kit (200 assays)
RS-FL 0101-L	Allsheng® high sensitivity dsDNA quantitation kit (1000 assays)
RS-FL 0102-S	Allsheng® broad range dsDNA quantitation kit (100 assays)
RS-FL 0102-M	Allsheng® broad range dsDNA quantitation kit (200 assays)
RS-FL 0102-L	Allsheng® broad range dsDNA quantitation kit (1000 assays)
RS-FL 0103-S	Allsheng® high sensitivity ssDNA quantitation kit (100 assays)
RS-FL 0103-M	Allsheng® high sensitivity ssDNA quantitation kit (200 assays)
RS-FL 0103-L	Allsheng® high sensitivity ssDNA quantitation kit (1000 assays)

TDH-500

Hybridization System

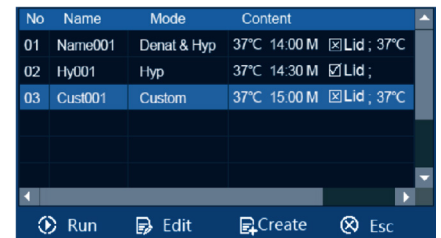
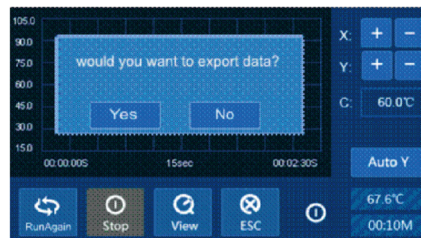
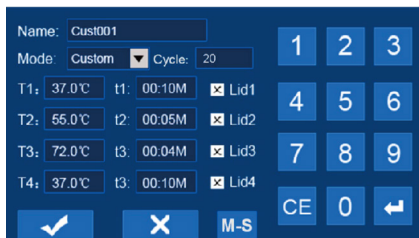
Programmable system and humidifying that automates the steps in a slide-based FISH procedure, and provides walkaway convenience for clinical and research personnel. Up to 12 slides can be easily added or removed with one hand. Two-side heating of slides that allows achieving exact correspondence of the set and actual temperature and maintaining uniform temperature across all slide positions. To built upon the innovative design, TDH-500 is ideally suited for the needs of cytogenetic laboratories to provide a good instrument.



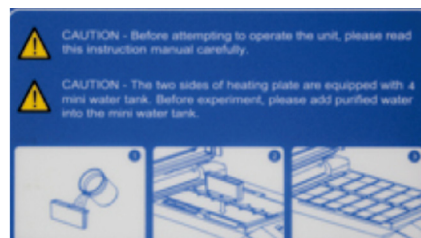
Features

- Touch screen easy to read, program and use.
- It can run In-situ PCR experiments.
- Possibility to export cycles data via USB memory.
- Four operation modes: denaturation / hybridization, hybridization fixed temperature, custom, In-situ PCR.
- Can be used as a fixed temperature slide warmer.
- Rapid temperature warm-up and accuracy of $\pm 1^\circ\text{C}$.
- Superior temperature uniformity across all slide positions.
- Perfect humidity control system.

01 Touch screen display, easy programmable setting



02 Perfect humidity control system



03 Possibility to export cycles data



Specification

Temperature control range	RT. +5 °C-99.9 °C
Temperature accuracy	≤±1 °C
Temperature uniformity	≤±2 °C
Temperature display accuracy	±0.1 °C
Timer	1 min~99 h 59 min or 1 sec~99 min 59 sec
Heating time (37 °C to 95 °C)	≤4 min
Cooling time (95 °C to 45 °C)	≤8 min
Operation mode	Denaturation / hybridization, hybridization fixed temperature, custom and in-situ PCR
Capacity	12 slides
Dimension (D×W×H) mm	225×420×143 mm
Weight	6.2 kg
Power	460 W

Ordering Information

Code	Product description
AS-05010-00	TDH-500 hybridization system, AC 120 V, 3 A or AC 220 V, 2 A, 50 / 60 Hz

III

POCT Detection & Reagent

Gene-8C / 8C2

Isothermal Fluorescence PCR

Gene-8C isothermal fluorescence PCR is mainly used for isothermal amplification and real-time fluorescence detection of samples. It is widely used in rapid detection of pathogenic microorganisms (including viruses, bacteria, fungi, mycoplasma, parasites, etc.), clinical disease diagnosis, food hygiene inspection and environmental monitoring. It can also be used for sex identification of animal embryos and detection of genetically modified food. The humanized operating system can directly interpret the results. The supporting APP software makes the experiment truly realize real-time detection. The design of the built-in battery makes it possible to use the instrument outdoors.

Gene-8C2 isothermal fluorescence PCR is a small and portable instrument that adds dual-channel (mode selection) fluorescence excitation and detection on the basis of Gene-8C.



Features

01 Dual-Channel Fluorescence Excitation Detection (Gene-8C2)

02 Outdoor Use, Convenient and Portable

Small size, equipped with rechargeable batteries, make the detection real-time and practical. Portable experimental box, equipped with other necessary instruments, to improve experimental efficiency.

03 Provide Multiple Data Export Methods

Use USB and WIFI connection to transfer the experimental data and results to your computer, or save the data directly to the cloud through WIFI (it needs to be developed according to customer needs).

04 View the Results on the Computer, Sort out and Share Data

Once the data is exported, you can use PC software to view data in various formats and sort out experimental data.

05 Easy to Use "Data Printer" Option

You can directly print the results from the instrument through the USB printer interface. You can also use PC software to print and export the results from the computer.

06 Easier Operation

- The positive and negative results of the experiment can be directly interpreted without other calculations.
- With a 7-inch touch screen, a single machine can complete the setting, detection, interpretation and saving.
- Humanized software function, dual channel design to adapt to different reagent testing needs.

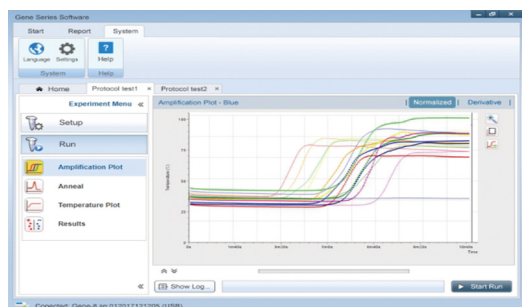
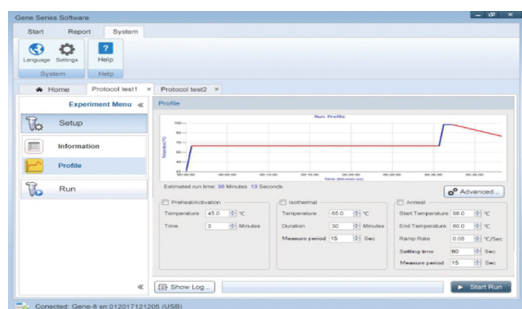
07 More Intelligent Software System

- The instrument software is simple and clear, which can be easily mastered by new users.
- Android APP software, which can control the operation of monitoring instruments.
- It can be operated by an external computer to meet various customer needs.
- With mobile APP real-time data transmission, it is a real real-time detection system.
- Data statistics function, recording experimental parameters and data, convenient for tracing and searching.
- Real-time detection, automatic identification of negative and positive, melting curve and other functions.

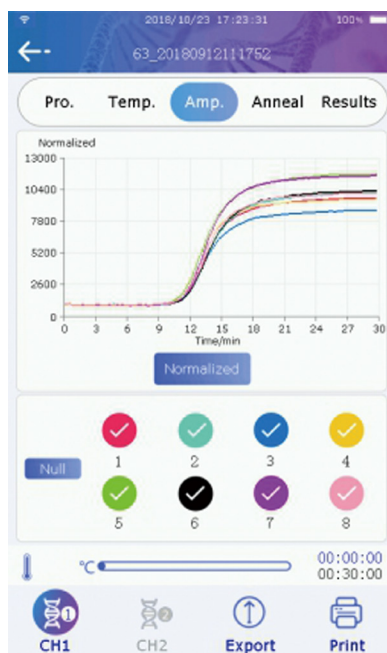
08 More Reliable Results

- The side optical path detection system can detect at least 20 μL reaction system (Gene-8C) and 10 μL reaction system (Gene-8C2).
- Precise temperature control, the temperature difference between wells is less than 0.15 $^{\circ}\text{C}$, and the temperature control accuracy reaches 0.1 $^{\circ}\text{C}$.
- Real time monitoring of fluorescent signals to avoid subjective errors caused by manual interpretation.

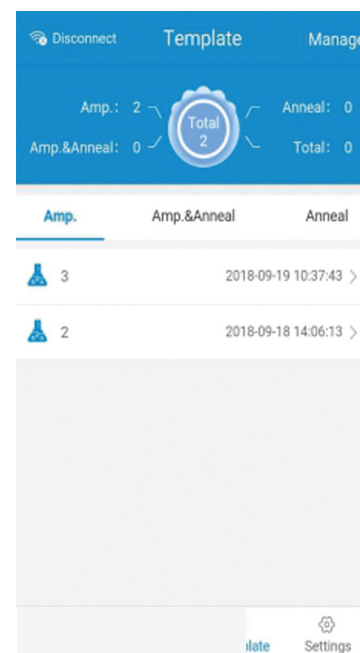
Software



PC Software Interface



Built-in Software



Android Mobile's APP Software

Specification

Model		Gene-8C	Gene-8C2	
Optical path system	Channel	One	Two	
	Excitation wavelength	Ex 470 nm / LED	Ex 470 nm / LED	Ex 525 nm / LED
	Detection wavelength	Em 535 nm / PD	Em 535 nm / PD	Em 605 nm / PD
Sample tray	Sample size	0.2 mL–8-well (8-strip tube available)		
	Sample Volume	15-150 μ L (20-30 μ L recommended)		
	Applicable dye	FAM, SYBR Green 1, HEX		
Temperature control	Temperature range ($^{\circ}$ C)	15 $^{\circ}$ C-99 $^{\circ}$ C		
	Heating speed ($^{\circ}$ C)	2 $^{\circ}$ C/s		
	Cooling speed ($^{\circ}$ C)	2 $^{\circ}$ C/s		
	Temperature uniformity ($^{\circ}$ C)	± 0.15 $^{\circ}$ C @39 $^{\circ}$ C		
	Temperature accuracy / temperature control precision ($^{\circ}$ C)	± 0.2 $^{\circ}$ C / 0.1 $^{\circ}$ C		
		Thermo lid		
Optical path system	Excitation light source / detection mode	LED / real-time fluorescent signal detection		
	Result display mode	1. Negative / positive; 2. peak time; 3. melting Tm value		
Function	Interpretation mode	1. Construct amplification curve judgment; 2. The instrument automatically analyzes and determines positive or negative		
	Touch screen	7-inch touch screen		
	Control software	Instrument software, PC software, supporting app (Android system)		

Power supply	Input power	100~240 V, 50~60 Hz
	Lithium battery	With charging battery (optional)
Weight	2.5 kg (without battery)	
Dimension (WxDxH)	145×305×100 mm	

Ordering Information

Code	Product description
AS-20010-00	Gene-8C isothermal fluorescence PCR
AS-20020-00	Gene-8C2 isothermal fluorescence PCR
qPCR Reagents	
RS-QP01001	qPCR probe master mix (probe method)
RS-QP01002	U+qPCR probe master mix (probe method)
RS-QP01003	WSSV qPCR kit (probe method)
RS-QP01004	IHHNV qPCR kit (probe method)
RS-QP01005	EHP qPCR kit (probe method)
RS-QP01006	One step qRT-PCR probe master mix (probe method)
RS-QP01007	U+One Step qRT-PCR probe master mix (probe method)
RS-QP01008	TSV qPCR kit (probe method)
Cell-free Recombinant Protein Expression Kit	
RS-IP04001	Non-dialysis escherichia coli cell-free recombinant protein expression kit
RS-IP04002	Dialysis escherichia coli cell-free recombinant protein expression kit
RS-IP04003	High-throughput dialysis escherichia coli cell-free recombinant protein expression kit

Aquatic Virus Series

RS-IP02001	WSSV isothermal amplification PCR master mix kit
RS-IP02002	IHHNV isothermal amplification PCR master mix kit
RS-IP02003	EHP isothermal amplification PCR master mix kit
RS-IP02004	TSV isothermal amplification PCR master mix kit
RS-IP02005	SHIV isothermal amplification PCR master mix kit

Animal Origin Doping Series

RS-IP03001	Porcine-origin gene isothermal amplification PCR kit
RS-IP03002	Chicken-origin gene isothermal amplification PCR master mix kit
RS-IP03003	Duck-origin gene isothermal amplification PCR master mix kit
RS-IP03004	Bovine-origin gene isothermal amplification PCR master mix kit
RS-IP03005	Sheep-origin gene isothermal amplification PCR master mix kit

Isothermal Amplification PCR Reagent

RS-IP01001	Isothermal PCR master mix
RS-IP01002	Isothermal PCR master mix (RNA template)

Ecos-Gene Series

Automated Nucleic Acid Extraction and PCR System

Ecos-Gene series automated nucleic acid extraction and PCR system includes three models: Ecos-Gene 1, Ecos-Gene 2 and Ecos-Gene 4, which can handle 1, 2 and 4 samples at the same time. Various models can be freely combined, and up to 16 samples can be extracted and tested at the same time.

The instrument includes 4 fluorescence detection channels, which can achieve multiple detection projects of one sample at the same time, and strict self-checking mechanism ensures the accuracy of the results. In addition, instrument innovatively adds a quantitative detection function, which can freely select the output qualitative or quantitative detection results according to actual needs.

The instrument is small and flexible with 10.5-inch touch screen. Equipped with intuitive interface and stable operation software, it's an ideal choice for on-site fast detection!



Features

01 Closed Detection

Disposable independent card box design, each sample corresponds to an independent card box, which avoids contamination between samples, and excellent sealing avoids pollution caused by aerosol leakage.

02 Automatic Detection

Adopting reagent freeze-drying technology, reagent card box completes the pre-packaged nucleic acid extraction reagent and PCR reaction reagent before leaving the factory, without manual addition. The operator only needs to manually add samples and magnetic beads and the manual operation time is ≤ 2 min, truly realizing "sample-to-result".

03 Multi-Channel Detection

Each sample has 4 channels for detection. The excitation-emission wavelengths are 470-510 nm, 530-565 nm, 585-620 nm and 630-665 nm, respectively. Multiple detection items can be detected simultaneously.

04 Intuitive Software

Visualized interface and user authorization management. The administrator has the highest authority.

05 Open and Compatible

Ecos-Gene automated nucleic acid extraction and PCR system has good adaptability and high software openness. Adopting open software design, which can be adapted to all kinds of magnetic bead extraction and detection kits on the market.

06 Multiple Detection Types

- Instrument end software, simple and clear, easy to use.
- Android mobile app can control and monitor instrument operation.
- Can be operated through an external computer to meet various customer needs.
- Mobile APP real-time data transmission, a true real-time monitoring system.
- Data statistics function records experimental parameters and data for easy tracking and searching.
- Real-time monitoring, automatic determination of negative and positive, melting curve and other functions.

Operation Process



Step 1

Add samples and magnetic beads



Step 2

Detect with reagent box



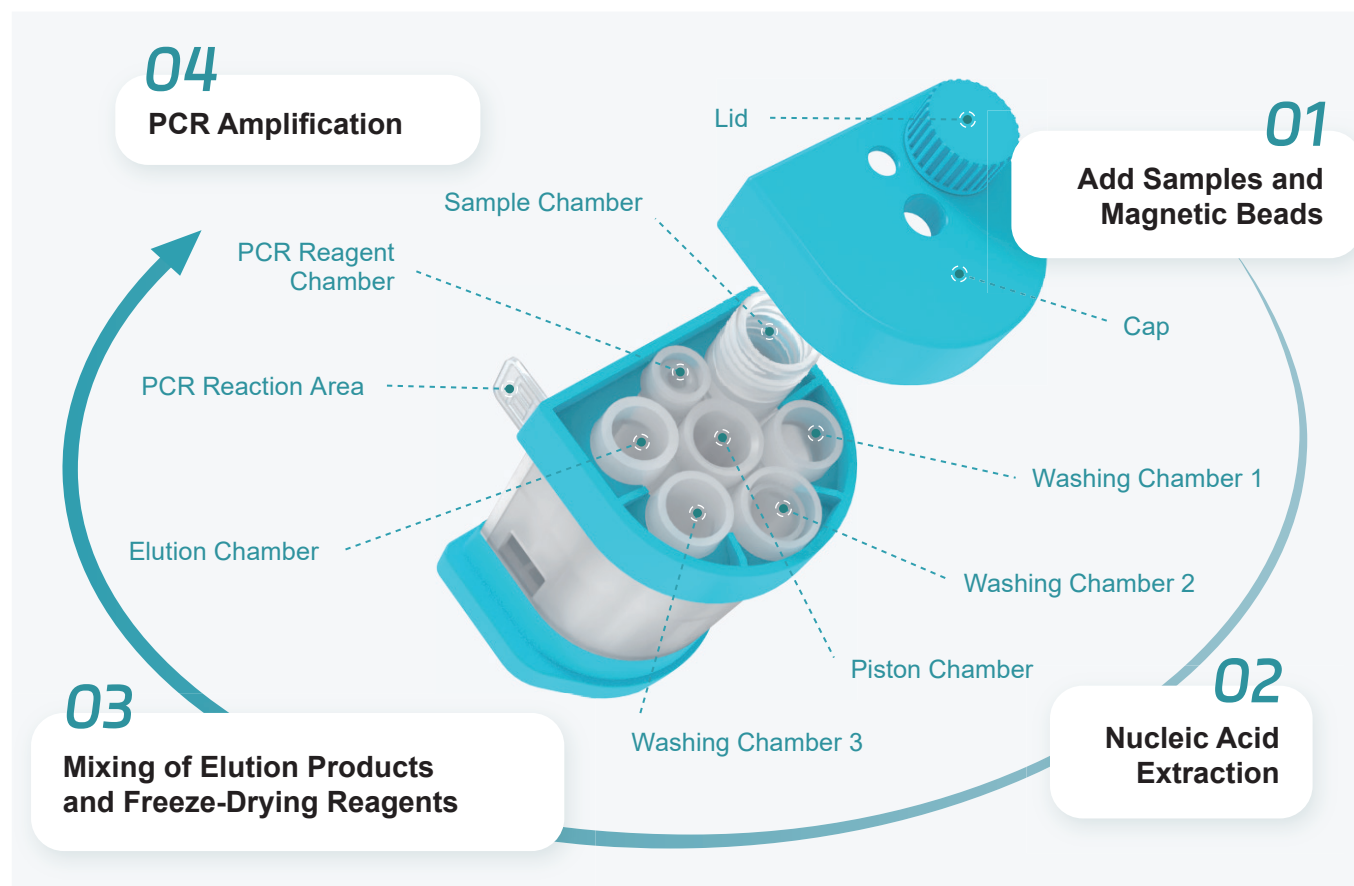
Step 3

Select a program and run.
Check results after the detection

Nucleic Acid Chamber Integrated Cartridge

The cartridge is mainly composed of four parts: base, reaction chamber, PCR reaction area and top cover. It relies on the rotation of the bottom piston valve to achieve liquid transfer between different chambers.

First, add samples and magnetic beads in the sample chamber to complete the lysis and binding steps of the nucleic acid extraction. Then complete three times of washing and purification of nucleic acid in the washing chamber and elute in the elution chamber. Finally mix with the reagents in the PCR reaction area to complete the PCR amplification reaction.



The instrument is small and portable. Customers can choose different throughput instruments according to the needs, and each throughput operates independently without affecting each other, which can be expandable. Ecos-Gene 1 / Ecos-Gene 2 / Ecos-Gene 4 can be freely selected, and up to 16 sample channels can be controlled at the same time.

Specification

Model		Ecos-Gene 1	Ecos-Gene 2	Ecos-Gene 4
Throughput		1	2	4
Consumable well number		4 reagent chambers, supporting pre-packaged liquid reagents 1 sample chamber with sealing cover 1 detection well, supporting PCR amplification and fluorescence detection		
Sample chamber capacity		Maximum capacity is 3 mL, the working volume is about 2.5 mL		
Magnetic method		Bottom magnetic absorption		
Extraction temperature performance	Heating method	Lysis well and elution well can be heated		
	Heating range	RT. ~120 °C		
	Temperature accuracy	±0.5 °C		
Extraction performance	Extraction time	According to the reagent scheme, generally 25~30 min for each sample		
	Extraction consistency	CV ≤5 %		
PCR amplification	Average heating rate	Block from 50 °C~95 °C: ≥6 °C/s		
	Maximum heating rate	Block from 50 °C~95 °C: ≥10 °C/s		
	Average cooling rate	Block from 95 °C~50 °C: ≥4.5 °C/s		
	Maximum cooling rate	Block from 95 °C~50 °C: ≥8 °C/s		
	Temperature accuracy	≤±0.2 °C		
	Block temperature control accuracy	≤±0.2 °C 55 °C		
Detection block	Fluorescence detection channel	4 (470-510 nm, 530-565 nm, 585-620 nm, 630-665 nm)		
Applicable fluorescent dyes		FAM / HEX / ROX / CY5		
Detection time		According to the reagent scheme, generally 35 ~ 50 min for each sample		
Sterilization		Each sample channel is equipped with an independent UV sterilization lamp		
Software operation		Windows system software, supporting personalized function customization		
Report output		Support connecting external printer and printing test reports		
External interface		1×RS232 port; 1×B-USB port; 1×LAN port		
Information management		Support external code scanner, which can input sample / reagent information Expandable LIS system connection Expandable cloud database connection		

Ordering Information

Code	Product description
AS-28010-00	Ecos-Gene 1 automated nucleic acid extraction and PCR system
AS-28020-00	Ecos-Gene 2 automated nucleic acid extraction and PCR system
AS-28030-00	Ecos-Gene 4 automated nucleic acid extraction and PCR system

TSR-100A / TSR-200

Test Strip Reader

TSR-100A and TSR-200 test strip reader are suitable for test the immunochromatographic test strips. By using modern photoelectric technology and photodiode to detect the intensity of the reflected light, the reader can detect the color of the strip, then calculate the quanting or concentration. It can avoid reading mistake by eyes and make rapid, high sensitivity when using reader to detect the color change of test strip.



TSR-100A



TSR-200

01 Easy to Use and High Accuracy

- 6.2-inch touch screen for TSR-100A.
- Powerful program design, it is easy to be used.
- Patented design offer good solutions guaranteed and excellent results.
- Each testing result is available to check and it can show the graph of the result.
- Build-in or external thermal printer.
- Rapid instrument calibration.

02 Customization Acceptable

- Equipped specialized software of different test strips, increase or decrease detection program according to the manufacturers requirements.
- Support customization according to user needs.
- Test card and test strip for user flexible choice.
- Desktop and portable for user choice:
TSR-100 Desktop test strip reader
TSR-200 Portable test strip reader

03 TSR-100A Highlights

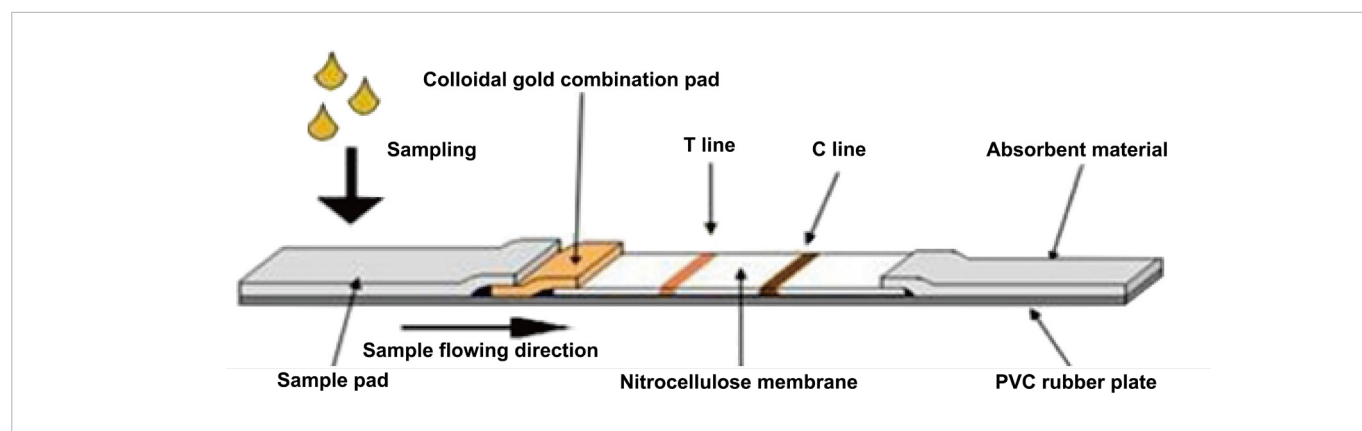
- 6.2-inch touch screen for easy use.
- Strict calibration system for stable results.
- Automatically identify CT line position, error correction range ± 3 mm.
- Fast and accurate test reduce human errors, automatic calculate concentration and judgment.
- Accurately identify one or more(up to 4) T lines value and CT ratio.
- Large built-in memory can save 4000 records.
- Build-in thermal printer.
- Powerful software, build-in 2 systems software (one for the end-user, another one for the reagent manufacturer).

04 TSR-200 Highlights

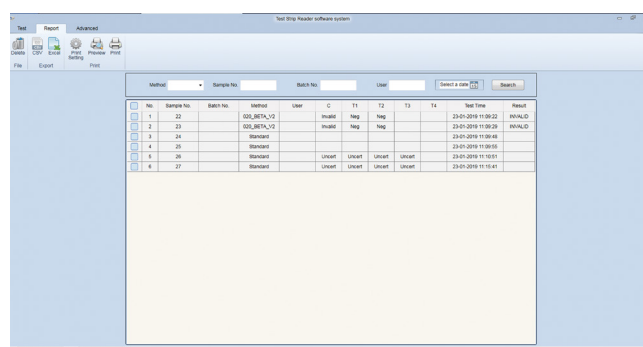
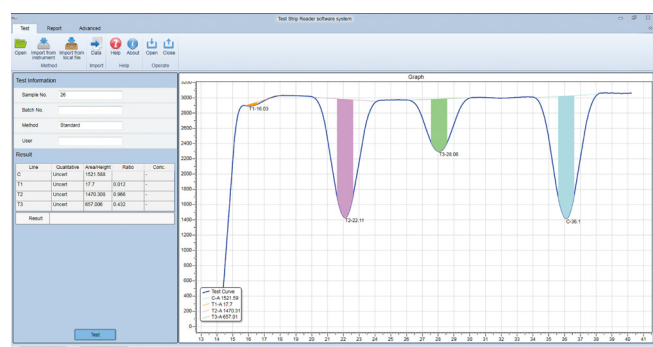
- Small size and light weight for easy carrying.
- Simply operation with 1~3 steps quantitative detection.
- Semi-automatic detection with high speed, test time only 5 s except prepare sample time.
- Automatically identify CT line position, error correction range ± 3 mm.
- Accurately identify one or more(up to 4) T lines value and CT ratio.
- Large built-in memory can save 10000 records.
- External thermal printer for printing reports.
- Powerful software, build-in 2 systems software (one for the end-user, another one for the reagent manufacturer).

Detection Principle

Standard test strip structure as picture, these equipments detect sample positive or negative (concentration) by measuring reflection of light intensity of T and C line. These are also suitable for some test strip with several T lines. TSR-100A can test 4 T lines and TSR-200 can test 4 T lines.



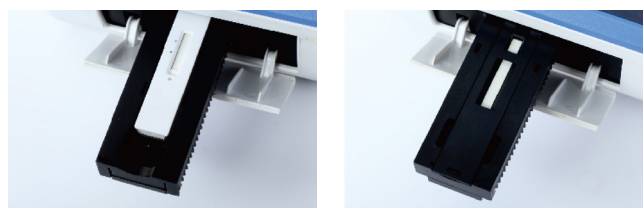
Test Strip Reader PC Software Interface



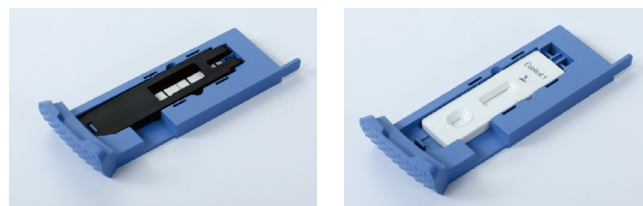
Test Strip



Adapter



Adapter for TSR-100A



Adapter for TSR-200

Remarks for Test Strip Reader

- Test strip reader must match the test strip, cooperate with the manufacturer of test strip.
- Support customization according to test strip manufacturer needs.
- Fluorescence detection must be provided excitation wavelength, emission wavelength and life of fluorochrome.

Specification

Model	TSR-100A	TSR-200
Test result	Multi-algorithm, quantitative, selected results, save and print results	Multi-algorithm, quantitative, selected results, save and print results
Display	6.2-inch touch screen	3.2-inch LCD screen
Port	2×USB, Ethernet port	2×USB
Printer	Built-in printer	External printer
Save type	Nand flash chip	Micro SD card (4GB)
Power adapter	DC 12 V 4 A	DC 9 V 1.5 A
Power	20 W	9 W
Dimension (W×D×H) mm	320×195×156 mm	225×109×46 mm
Weight	6 kg	0.5 kg
Wavelength	525±30 nm (base the requirement of customer)	
Detector type	Photodiode	
Test item	Immunochromatographic test cards or wide 3~6 mm test strips	
Parameter of test item	According to the requirement of test strips	
Test speed	240 strips each hour	
Repeatability	CV <2 %	
Stability	Drift value ≤3 % in 2 hours	
Data analysis	Qualitative, quantitative, semi-quantitative, multi-algorithm	
Number of T-line	4 lines	
Software operation	ARM	

Ordering Information

Code	Product description
AS-12010-00	TSR-100A test strip reader, DC 24 V 2 A (standard: adapter S-100)
AS-12011-01	Adapter C-100 for TSR-100A
AS-12020-00	TSR-200 portabel test strip reader, DC 9 V 1.5 A (standard: adapter S-200)
AS-12021-01	Adapter C-200 for TSR-200

DFR-100

Fluorescence Immuno Analyzer



DFR-100 fluorescence immuno analyzer is suitable for the detection of fluorescence immunochromatography test strip samples. The collected fluorescent signal is converted into an electrical signal by the photoelectric sensor, so as to calculate the content or concentration of the sample to be tested. While inheriting the advantages of fast, concentrated and simple immunochromatography technology, time resolved fluorescence immunoassay also effectively improves the sensitivity and accuracy of detection.

Features

- High-resolution 7-inch touch screen, Chinese and English interface, simple software design, simple and intuitive operation.
- Patented optical path design and multi-algorithm data fitting, combined with multiple quality controls, ensure the repeatability and accuracy.
- Ultra-fast detection speed, the whole card detection is less than 10 s.
- Built-in scan code function, easy to scan, the sample information is automatically transferred to the system.
- Built-in printer can output results report in real time.
- Equipped with large-capacity memory, a single machine can store 10,000 test results, and has the function of result query.
- According to customer needs, cooperate with customers to provide medical device registration materials.

Specification

Excitation wavelength	365 nm
Emission wavelength	613 nm
Detector	PD
Excitation light source	LED
Detection speed	<10 s/card
Repeatability	T/C ratio: >0.2 CV≤1 %; ≤0.2 CV≤2 %
Stability	T/C ratio: >0.2 CV≤3 %; ≤0.2 CV≤5 %
Data storage	10000
Data interface	Standard: A-USB*2, B-USB
Printer	Built-in, thermal roll paper 57 mm
Scan code function	Built-in, QR code
Standard curve import	ID chip card import
Touch screen	7-inch capacitive screen
Software system	Linux+QT
Input power	AC100~240 V, 50~60 Hz
Rated voltage	12 V, ≥2.5 A

Ordering Information

Code	Product description
AS-12050-00	DFR-100 fluorescence immuno analyzer, single card detection

IV

Automation & Liquid Handling

Au-Mate 96

Liquid Handling Workstation

For complex experimental procedures and precise pipetting operations, Au-Mate 96 series liquid handling workstation can bring you unlimited imagination. Through the external tablet computer, you can easily set up, save and operate the experimental process. Through the software control, the difference between aspirating and dispensing is truly eliminated, which improves the repeatability of pipetting.

The simple and easy-to-operate software system controls the process of loading and unloading pipetting heads, aspirating and dispensing liquid, so as to complete complex multi-step experiments. A large amount of repetitive work can be completed in a short time, thereby reducing most of the manual pipetting burden, and significantly improving the sample processing speed and repeatability.



Features

01 Small Size and Saving Space

Au-Mate 96 with 2 plate positions has a compact structure. It only takes up a very little space on the laboratory table, and is easy to install in the clean bench, safety cabinet, and fume hood so that you can work in narrow spaces. Lots of repetitive work can be easily completed by switching the pipetting positions on the mobile table.

03 Multiple Plate Positions and High Automation

You can choose 2 / 4 plate positions, or you can customize 3 / 6 plate positions, which can move automatically. The pipetting heads and plate positions can run automatically.

05 Intuitive Program Setting Interface

Graphical software interface, which is easy to be understood and edited. Through the standard 8-inch Android tablet, users can experience free process editing. The instrument has a built-in user management system to facilitate the management of the experimental programs.

06 Powerful Software Functions

Integrate a variety of pipetting functions: aspirating, dispensing, blowing air, continuous blowing air, column-separated aspiration, stepper pipette, mixing, dilution, reverse aspiration.

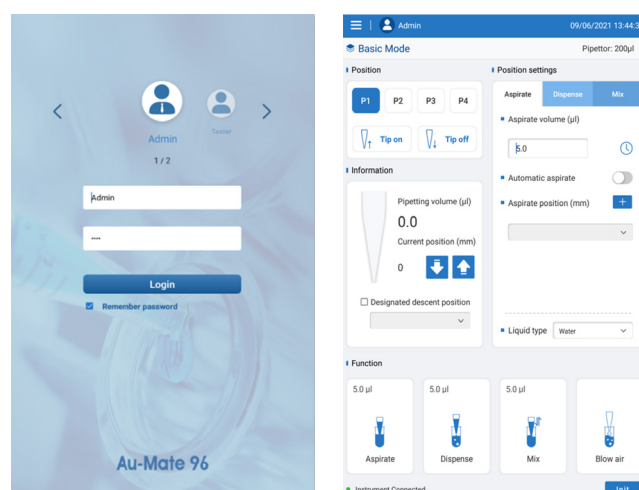
Movement speed can be adjustable: liquid aspirating and dispensing speed can be adjustable, to meet the requirements of different liquid physical properties for pipetting speed.

02 Support Wired Operation and Wireless Bluetooth Control

For some experimental environments with special requirements, the instrument can be placed in fume hoods, clean benches, etc. Using Bluetooth wireless control of the instrument, which not only reduces the interference to the experiment, but also ensures the safety of the experimenters.

04 Compatible with Multiple Consumables

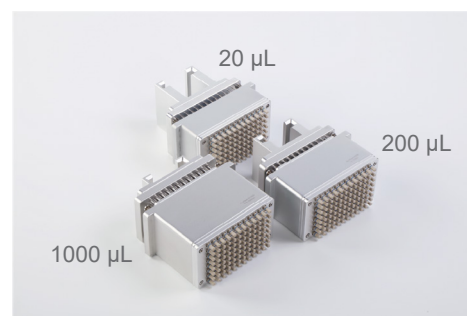
Can select Allsheng tips, and other tips compatible with this instrument. In addition, customized services can be provided for special TIP.



07 Replaceable Design of Multi-standard Pipetting Heads

A series of 20 μL and 200 μL pipetting heads can be freely replaceable for corresponding volume pipetting;

B series adds a 1000 μL pipetting head on the basis of A, which is convenient for large-volume pipetting.



Specification

Model	Au-Mate 96A2	Au-Mate 96A4	Au-Mate 96B2	Au-Mate 96B4
Plate number	2	4	2	4
Adapted pipetting head	Au-Pipet N20 / N200	Au-Pipet N20 / N200	Au-Pipet N20 / N200 / N1000	Au-Pipet N20 / N200 / N1000
Software control mode	Basic mode	Basic & advanced mode	Basic mode	Basic & advanced mode
Net weight (kg)	26	30	29	33
Dimension (W×D×H) mm	475x343x535	690x343x535	475x350x673	690x350x673
Channel	8 / 96 channel			
Technical principle	Air displacement			
Available well plate	SBS standard 24 / 96 / 384 deep and shallow well plates			
Consumables	Matching Allsheng Tip			
System	Standard 8-inch Android tablet, software adaptive to mainstream size tablet			
Communication method	CAN communication			
Power supply	100~240 V, 50~60 Hz			
Power	100 W			
Wireless control	The instrument has a built-in Bluetooth block, which can be connected wirelessly			

The instrument is divided into A and B series: A series can be equipped with two kinds of pipetting heads (20 μL , 200 μL); B series can be equipped with three kinds of pipetting heads (20 μL , 200 μL , 1000 μL)

Ordering Information

Code	Product description
AS-22010-00	Au-Mate 96A2 liquid handling workstation, 2 types of pipetting heads available, 100-24 VAC, 100 W
AS-22030-00	Au-Mate 96A4 liquid handling workstation, 2 types of pipetting heads available, 100-24 VAC, 100 W
AS-22050-00	Au-Mate 96B2 liquid handling workstation, 3 types of pipetting heads available, 100-24 VAC, 100 W
AS-22070-00	Au-Mate 96B4 liquid handling workstation, 3 types of pipetting heads available, 100-24 VAC, 100 W

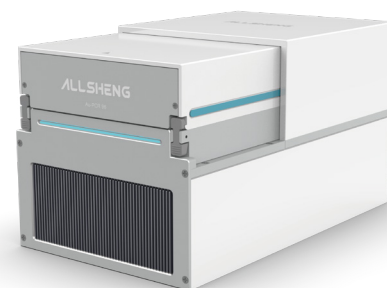
Adapted Pipetting Head and Holder

Code	Product description	Range	Optional instrument
AS-22011-01	Au-Pipet N20 20 μL 96-channel pipetting head	1~20 μL	A2 / A4 / B2 / B4
AS-22011-02	Au-Pipet N200 200 μL 96-channel pipetting head	5~200 μL	A2 / A4 / B2 / B4
AS-22051-01	Au-Pipet N1000 1000 μL 96-channel pipetting head	100~1000 μL	B2 / B4
AS-22011-03	384 well adapter	/	A2 / A4 / B2 / B4

Au-PCR 96

PCR for Workstation

Au-PCR 96 for workstation is a compact PCR cycler suitable for laboratory automation systems. Freely programmable temperature process and thermo lid temperatures, can maintain excellent heating performance even with misaligned PCR plate reagent loads. It has good temperature uniformity, precise run times, ideal for use on liquid handling workstation.



Features

- Use imported customized long-life Peltier block, cycle number is more than 1 million times.
- Anodized aluminum blocks that retain fast thermal conductivity and corrosion resistance.
- Fast heating and cooling rate, the fastest heating and cooling rate is 5 °C/s, saving experimental time.
- Motorized self-adaptive thermo lid, suitable for full-skirted and semi-skirted 96-well PCR plates.
- Small size, linked through CAN communication port.
- Automatic power-off protection, automatically execute the unfinished cycle after the power supply is restored, to ensure the safe operation of the whole process of amplification.
- Support silicone thermo lid to meet a variety of experimental needs.

Specification

Applicable consumables	96 PCR plate	Temp. duration accuracy	≤±5 s
Application scenarios	For stand-alone PCR labs or pipetting workstations	Power supply	AC 100-240 V 50-60 HZ Max 800 W
Temperature range	Thermo lid: 30 °C~120 °C Block: 4 °C~99 °C	Thermo lid clean	The thermo lid can be flipped for easy cleaning and disinfection
Max. temp. of thermo lid	110 °C	4 °C heat preservation	Infinity
Average heating rate	Block 50 °C~90 °C: ≥2.0 °C/s	Communication port	CAN
Average cooling rate	Block 90 °C~50 °C: ≥2.2 °C/s	Controlling software	When connected to the workstation, it is controlled by the workstation; it can be controlled by the APP software when it is used alone
Temperature accuracy	≤±0.3 °C	Weight	12 kg
Block temp. control precision	≤0.2 °C	Dimension (W×D×H)	162×277×165 mm
Temperature uniformity	≤0.7 °C		

Ordering Information

Code	Product description
AS-24010-00	Au-PCR 96, with CAN communication, AC 100-240 V / AC 800 W
AS-24011-01	Au-PCR 96 power supply parts

Dry Bath Incubator



Product Type

Dry Baths (Heating)

- Au-Heater Dry Baths for Workstation (Heating)
- Be-Heater Dry Baths (Heating)

Dry Baths (Heating / Cooling)

- Au-Cooler Dry Baths for Workstation (Heating / Cooling)
- Be-Cooler Dry Baths (Heating / Cooling)

Au Series Dry Baths for Workstation



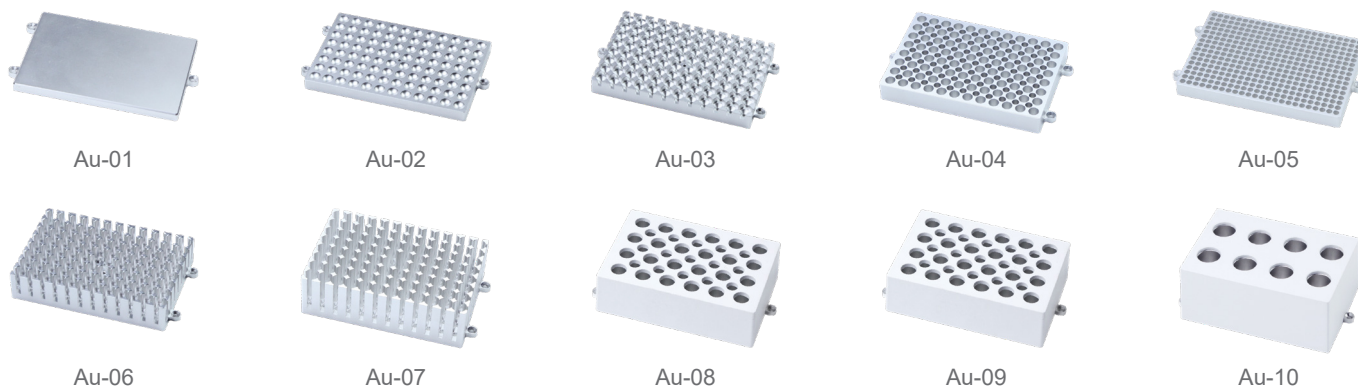
Suitable for laboratory automation systems. It has its own display screen, which is easy to read programmed or measured parameters. It has a DB9 interface with CAN communication, which can be used for online communication with automation workstations of various manufacturers, and can be used alone.

Be Series Dry Baths



It's with display screen but without CAN communication port. It's small and can be used alone.

Suitable Block



Specification

Model	Au / Be-Heater	Au / Be-Cooler
Temperature range	RT. +5 °C~105 °C	RT. +5 °C~105 °C
Temperature setting	0.1 °C	0.1 °C
Time setting	99 h 59 min or 99 min 59 s	99 h 59 min or 99 min 59 s
Heat-up time [1]	/	95 °C~RT. ≤8 min
Cooling time [1]	/	RT. ~4 °C ≤8 min
Heat-up time [1]	RT. +5 °C~ 95 °C ≤10 min	RT. ~95 °C ≤8 min
Temperature uniformity [2]	±0.5 °C	±0.5 °C
Temperature accuracy	±0.5 °C	±0.5 °C
Ccommunication (Au series)	DB9 port, CAN communication	DB9 port, CAN communication
Stand-alone use	Support	Support
Input power	24 V DC, 120 W	24 V DC, 160 W
Signal line (Au series)	2 m cable, controlled by workstation	2 m cable, controlled by workstation
Dimension / mm	142×105×77	142×105×82

[1] The heating and cooling speed is related to the block type. This indicator is tested in 0.5+1.5 mL block

[2] According to different blocks, the temperature uniformity index is different

Ordering Information

Code	Product description
AS-23020-00	Au-Heater dry baths for workstation (heating), with CAN communication
AS-23320-00	Be-Heater dry baths (heating), without CAN communication
AS-23010-00	Au-Cooler dry baths for workstation (heating / cooling), with CAN communication
AS-23310-00	Be-Cooler dry baths (heating / cooling), without CAN communication

Suitable Block

Code	Model	Product description
AS-23011-01	Au-01	Adapt to flat bottom microplate
AS-23011-02	Au-02	Adapt to 96-well round bottom microplate / deepwell plate
AS-23011-03	Au-03	Adapt to 96-well conical bottom deepwell plate
AS-23011-04	Au-04	Adapt to 96×0.2 mL PCR plate
AS-23011-05	Au-05	Adapt to 384×0.1 mL PCR plate
AS-23011-06	Au-06	Adapt to DWP500 µL deepwell plate
AS-23011-07	Au-07	Adapt to DWP1000 µL deepwell plate
AS-23011-08	Au-08	Adapt to 24×1.5 mL+15×0.5 mL block
AS-23011-09	Au-09	Adapt to 24×2.0 mL+15×0.5 mL block
AS-23011-10	Au-10	Adapt to 8×5 mL block

Shaker

- The shaker can provide shaking of multiple blocks such as 96-well, 384-well microplates, deepwell plates and centrifuge test tubes.
- Anti-vibration technology and 2D motion control ensure the uniformity of sample mixing.
- The shaker has its own display screen, which is easy to read programmed or measured parameters.
- Blocks can be customized according to different applications.



Product Type

Shaker

- Au-Shaker 5012 / 3020 / 2030 Shaker for Workstation
- Au-Shaker 5012L / 3020L / 2030L Automatic Locking Shaker for Workstation
- Be-Shaker 5012 / 3020 / 2030 Portable Shaker

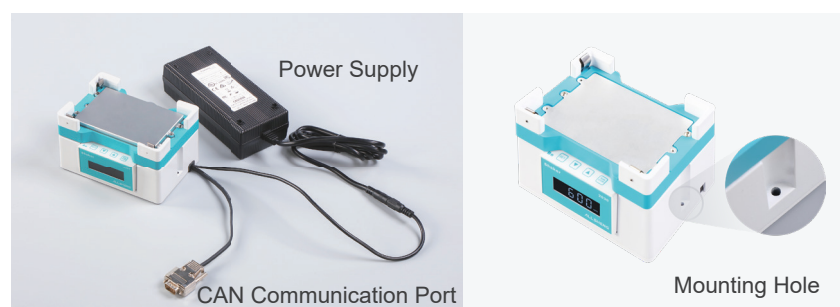
Thermo Shaker Incubator (Heating)

- Au-Shaker 3020T / 2030T Thermo Shaker Incubator for Workstation (Heating)
- Au-Shaker 3020TL / 2030TL Automatic Locking Thermo Shaker Incubator for Workstation (Heating)
- Be-Shaker 3020T / 2030T Portable Thermo Shaker Incubator (Heating)

Thermo Shaker Incubator (Heating / Cooling)

- Au-Shaker 1530C Thermo Shaker Incubator for Workstation (Heating / Cooling)
- Be-Shaker 1530C Portable Thermo Shaker Incubator (Heating / Cooling)

Au Series Shaker for Workstation



- Shaker for automated workstation, has its own display screen, which is easy to read programmed or measured parameters.
- It has a DB9 interface with CAN communication, and can be used alone.
- The high-precision zero positioning function ensures the safe pipetting.
- Can be fixedly installed on workstation, running more stably.

Be Series Shaker



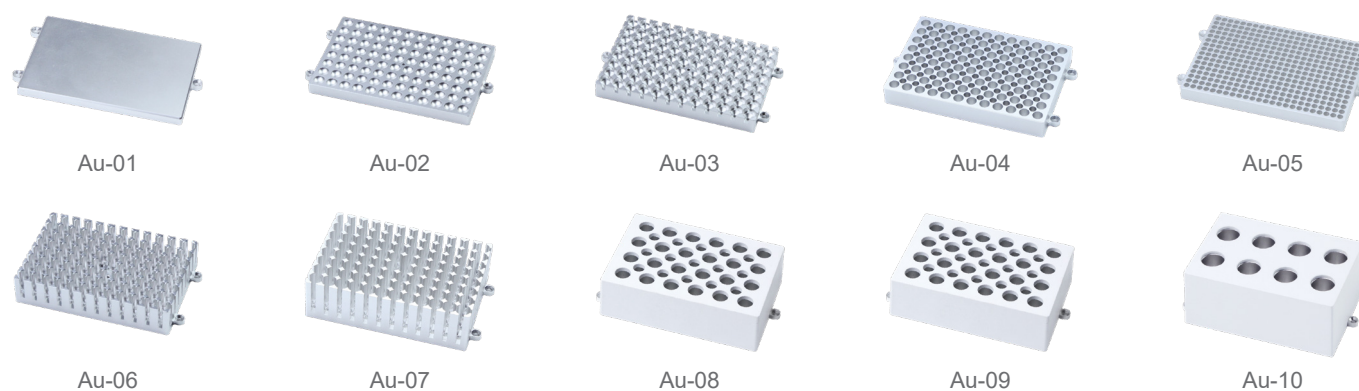
Portable shaker is with display screen but without CAN communication port. It's small and can be used alone.

Process of Automatic Locking Microplate Installation

Automatic locking shaker, whose manipulator can easily grab and place the microplate, can lock the microplate and shakes it evenly.



Suitable Block



Corresponding Product Maximum Speed (RPM)

Model	3020 / 3020T	2030 / 2030T	5012	3020L / 3020TL	2030L / 2030TL	5012L	1530C	1530CL
Au-01 Adapt to flat bottom microplate	3000	2000	5000	2500	1500	2500	1500	/
Au-02 Adapt to 96-well round bottom microplate / deepwell plate	3000 / 2000	1500	3000 / 2500	2500 / 2000	1500	3000 / 2500	1500 / 1300	1500 / 1300
Au-03 Adapt to 96-well conical bottom deepwell plate	2000	1500	2500	2000	1500	2500	1300	1300
Au-04 Adapt to 96×0.2 mL PCR plate	2000	1500	3000	2000	1500	2500	1500	1500
Au-05 Adapt to 384×0.1 mL PCR plate	3000	2000	5000	3000	2000	3000	1500	1500
Au-06 Adapt to DWP500 μ L deepwell plate	2000	1500	2500	2000	1500	2500	1300	1300
Au-07 Adapt to DWP1000 μ L deepwell plate	2000	1500	2500	2000	1500	2500	1300	1300
Au-08 Adapt to 24×1.5 mL+ 15×0.5 mL block	2000	1500	2500	2000	1500	2500	1300	1300
Au-09 Adapt to 24×2.0 mL+ 15×0.5 mL block	2000	1500	2500	2000	1500	2500	1300	1300
Au-10 Adapt to 8×5 mL block	2000	1500	2500	2000	1500	2500	1300	1300

Specification

Shaker

Model	Au / Be-Shaker 5012	Au / Be-Shaker 3020	Au / Be-Shaker 2030	Au-Shaker 5012L	Au-Shaker 3020L	Au-Shaker 2030L
Speed / rpm	200 - 5000	200 - 3000	200 - 2000	200 - 5000	200 - 3000	200 - 2000
Mixing orbit / mm	1.2	2.0	3.0	1.2	2.0	3.0

Thermo Shaker Incubator (Heating)

Model	Au / Be-Shaker 3020T	Au / Be-Shaker 2030T	Au-Shaker 3020TL	Au-Shaker 2030TL
Speed / rpm	3000	2000	3000	2000
Mixing orbit / mm	2.0	3.0	2.0	3.0

Temperature range RT. +5 °C~105 °C

Temperature setting 0.1 °C

Heat-up time [1] RT. +5 °C~ 95 °C ≤10 min

Temp. uniformity [2] ±0.5 °C

Temperature accuracy ±0.5 °C

[1] The heating and cooling speed is related to the block type. This indicator is tested in 0.5+1.5 mL block

[2] According to different blocks, the temperature uniformity index is different

Thermo Shaker Incubator (Heating / Cooling)

Model	Au / Be-Shaker 1530C	Au / Be-Shaker 1530CL
Speed / rpm	1500	1500
Mixing orbit / mm	3.0	3.0
Temperature range	0 °C~105 °C	0 °C~105 °C
Temperature setting	0.1 °C	0.1 °C
Heat-up time [1]	RT. ~95 °C ≤7 min	RT. ~95 °C ≤7 min
Cooling speed [1]	95 °C~RT. ≤7 min	95 °C~RT. ≤7 min
Cooling speed [1]	RT. ~4 °C ≤10 min	RT. ~4 °C ≤8 min
Temp. uniformity [2]	±0.5 °C	±0.5 °C
Temperature accuracy	±0.5 °C	±0.5 °C

[1] The heating and cooling speed is related to the block type. This indicator is tested in 0.5+1.5 mL block

[2] According to different blocks, the temperature uniformity index is different

Locking

Model	Au-Shaker 5012L / 3020L / 2030L / 3020TL / 2030TL
Block locking method	Edge locking
Automatic locking function	Automatic locking function is convenient for manipulators to grasp
Locking positioning accuracy	±0.1 mm

Block locking method of the non-automatic locking shaker is adjustable shrapnel

Basic Parameter

Time setting		99 h 59 min or 99 min 59 s	
Speed accuracy		±7.5 rpm	
Acceleration time		1-10 sec	
Zero positioning function		Zero automatic positioning function	
Zero positioning time		1-10 sec	
Zero positioning accuracy		±0.1 mm	
Workstation use		Au series supports workstation use, DB9 port, CAN communication and be used alone; Be series can only be used alone, without CAN communication	
Input power	Shaker	24 V DC, 48 W	
	Thermo Shaker Incubator (Heating)	24 V DC, 120 W	
	Thermo Shaker Incubator (Heating / Cooling)	24 V DC, 160 W	
Dimension / mm	Shaker	Au / Be-Shaker 5012 / 3020 / 2030	142×110×113
		Au-Shaker 5012L / 3020L / 2030L	142×110×110
	Thermo Shaker Incubator (Heating)	Au / Be-Shaker 3020T / 2030T	142×105×90
		Au / Be-Shaker 3020TL / 2030TL	142×105×94
	Thermo Shaker Incubator (Heating / Cooling)	Au / Be-Shaker 1530C	142×110×113
	Signal line (Au series)		2 m cable, DB9 port, controlled by workstation

Ordering Information**Shaker**

Code	Product description
AS-23050-00	Au-Shaker 3020 shaker for workstation, 24 V DC 48 W, with CAN communication
AS-23060-00	Au-Shaker 2030 shaker for workstation, 24 V DC 48 W, with CAN communication
AS-23070-00	Au-Shaker 5012 shaker for workstation, 24 V DC 48 W, with CAN communication
AS-23090-00	Au-Shaker 3020L automatic locking shaker for workstation, 24 V DC 48 W, with CAN communication
AS-23100-00	Au-Shaker 2030L automatic locking shaker for workstation, 24 V DC 48 W, with CAN communication
AS-23110-00	Au-Shaker 5012L automatic locking shaker for workstation, 24 V DC 48 W, with CAN communication
AS-23350-00	Be-Shaker 3020 portable shaker, 24 V DC 48 W, with CAN communication
AS-23360-00	Be-Shaker 20300 portable shaker, 24 V DC 48 W, with CAN communication
AS-23370-00	Be-Shaker 50120 portable shaker, 24 V DC 48 W, with CAN communication

Thermo Shaker Incubator (Heating)

Code	Product description
AS-23130-00	Au-Shaker 3020T thermo shaker incubator for workstation (heating), 24 V DC 120 W, with CAN communication
AS-23140-00	Au-Shaker 2030T thermo shaker incubator for workstation (heating), 24 V DC 120 W, with CAN communication
AS-23150-00	Au-Shaker 3020TL automatic locking thermo shaker incubator for workstation (heating), 24 V DC 120 W, with CAN communication
AS-23160-00	Au-Shaker 2030TL automatic locking thermo shaker incubator for workstation (heating), 24 V DC 120 W, with CAN communication
AS-23390-00	Be-Shaker 3020T portable thermo shaker incubator (heating), 24 V DC 120 W, with CAN communication
AS-23400-00	Be-Shaker 2030T portable thermo shaker incubator (heating), 24 V DC 120 W, with CAN communication

Thermo Shaker Incubator (Heating / Cooling)

Code	Product description
AS-23170-00	Au-Shaker 1530C thermo shaker incubator for workstation (heating / cooling), 24 V DC 160 W, with CAN communication
AS-23410-00	Be-Shaker 1530C portable thermo shaker incubator (heating / cooling), 24 V DC 160 W, without CAN communication

Suitable Block

Code	Model	Product description
AS-23011-01	Au-01	Adapt to flat bottom microplate
AS-23011-02	Au-02	Adapt to 96-well round bottom microplate / deepwell plate
AS-23011-03	Au-03	Adapt to 96-well conical bottom deepwell plate
AS-23011-04	Au-04	Adapt to 96×0.2 mL PCR plate
AS-23011-05	Au-05	Adapt to 384×0.1 mL PCR plate
AS-23011-06	Au-06	Adapt to DWP500 µL deepwell plate
AS-23011-07	Au-07	Adapt to DWP1000 µL deepwell plate
AS-23011-08	Au-08	Adapt to 24×1.5 mL+15×0.5 mL block
AS-23011-09	Au-09	Adapt to 24×2.0 mL+15×0.5 mL block
AS-23011-10	Au-10	Adapt to 8×5 mL block



Seal Film Handling & Consumable

SealBio-1

Automated Plate Heat Sealer

SealBio-1 automated sealer is a device for rapid and continuous sealing of microplates. It can be adapted to ANSI, SBS standard 12-well, 24-well, 48-well, 96-well and 384-well plates with height range of 3~62 mm, including all kinds of PCR plates, ELISA plates, deep-well plates, cell culture plates, etc. It supports the use of 78 mm puncturable roll film, aluminum foil roll film and strong heat sealing roll film.

Suitable for pre-filled of biochemical reagents, sealing film before PCR assays, long-term storage of samples, and other experimental applications that require sealing of reagents.



Features

- RT. ~200 °C free setting, to meet the needs of different film sealing applications.
- Built-in independent air source, no need to connect other equipment.
- Automatic preloading of film, continuous operation.
- Sealing cycle time <20 sec.
- Touch screen operation, graphical interface is easier to use.
- Standard roll film protection cover to avoid film surface contamination.
- Program storage function to save different types of film parameters for quick recall.

Specification

Model		SealBio-1
Product name		Automated plate heat sealer
Supported plate		ANSI / SBS standard plate, height range 3~62 mm
Support roll film	Film type	Puncturable film / aluminum foil film / strong heat sealing film
	Film width	78 mm
	Loading method	Automatic preloading of roll film
Film sealing temperature	Temperature range	RT. ~200 °C
	Temperature control accuracy	±1 °C
	Accommodative amplitude	1 °C
Pre-heating time		5 min
Cycle time		<20 s / time
Adjustable film sealing time	Time range	0.5~9.9 s
	Accommodative amplitude	0.1 s
Air source method		Built-in air source
Port		1×USB-B port and 1×Ethernet port
Power supply		AC 110 V / 220 V, 50 / 60 Hz
Maximum power		300 W
Software operation		7-inch touch screen software (resolution 1024*600) / edit sealing scheme / prestored sealing scheme
Safety		Standby function (low power mode) / detection of plate / detection of roll film

SealBio-2

Semi Automated Plate Sealer

SealBio-2 is a semi-automatic thermal sealer which is ideal for the low to medium throughput laboratory that requires uniform and consistent sealing of microplates. Unlike manual plate sealer, SealBio-2 produces repeatable plate seals. With variable temperature and time settings, sealing conditions are easily optimised to guarantee consistent result, eliminating sample loss. SealBio-2 can be applied in product quality control of many manufacture enterprises such as plastic film, food, medical, inspection institute, scholastic scientific research and teaching experiment. Offering complete versatility, SealBio-2 will accept a full range of plates for PCR, assay or storage applications.



Features

01 Highlights

- Format different micro well plates and heat seals.
- Adjustable sealing temperature: 80~200 °C.
- OLED screen, high light and no visual angle limit.
- Plate adapters allow use of PCR plate or virtually any ANSI microplate.

02 Security

- If a hand or objects stuck in the drawer when it's moving, the drawer motor will automatically reverse. This feature prevents injury to the user and the unit.
- Special and smart design on the drawer, it can be detached from the main device. So user can maintain or clean the heating element easily.

03 Open Design, More Comprehensive Settings

Sealing time and temperature can be set by using the control knob. OLED display screen, high light and no visual angle limit.

- Sealing time and temperature.
- Sealing pressure can be adjustable.
- Automatic counting function.

04 Energy Saving Functions

- When SealBio-2 is left idle more than 60 min, it will automatically switch into stand-by mode during when the temperature of the heating element will be reduced to 60 °C to save energy.
- When SealBio-2 is left idle more than 120 min, it will switch off automatically for safe. It will switch off the display and the heating element. then, the user can awaken the machine by pushing any button.

Operation Steps



Step 1

Pull the drawer



Step 2

Put the adapter plate



Step 3-1

Put a sealing film



Step 3-2

Put the weighted seal platen if the film is curly

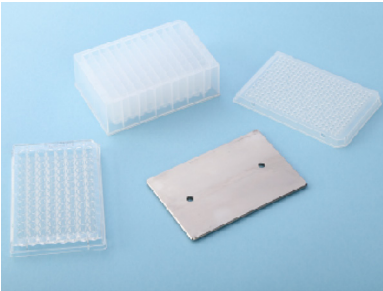


Step 4

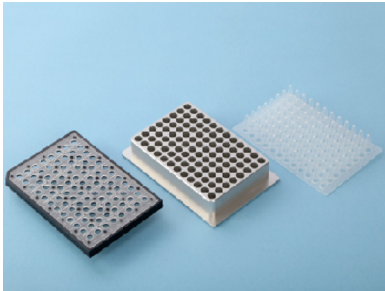
Press "RUN"

Remark: when using the weighted seal platen, the recommended sealing time should be increased by 1 second.

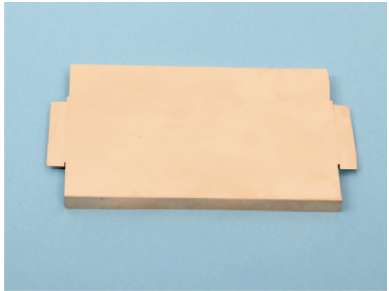
Suitable Block



SBA-1
Standard plate adapter



SBA-2
96-well PCR plate adapter



SBA-3
Weighted seal platen

Specification

Display	OLED
Sealing temperature	80~200 °C (increment 1.0 °C)
Temperature accuracy	±1.0 °C
Temperature uniformity	±1.0 °C
Sealing time	0.5~10 s (increment 0.1 s)
Seal plate height	9 to 48 mm
Input power	300 W
Dimension (D×W×H)	370×178×330 mm
Weight	9.6 kg
Compatible plate material	PP (Polypropylene), PS (Polystyrene), PE (Polyethylene)
Compatible plate type	SBS standard plates, deepwell plates, PCR plates (skirted, semi-skirted and no-skirted formats)
Heating sealing film & foil	Foil-polypropylene laminate, clear polyester-polypropylene laminate, clear polymer, thin clear polymer

Ordering Information

Code	Product description
AS-15020-00	SealBio-2 AC 220 V or AC 120 V, 50 / 60 Hz, 300 W
AS-15021-01	SBA-1 standard plate adapter
AS-15021-02	SBA-2 96-well PCR plate adapter
AS-15021-03	SBA-3 weighted sealing platen
AS-15021-11	Seal-150 peelable clear seal
AS-15021-12	Seal-200 peelable seal for storage
AS-15021-13	Seal-300 pierce aluminum heating sealing film

SealBio-3

Automated Plate Heat Sealer

SealBio-3 is designed for the Leap-Pure S24, H24, R16 series nucleic acid purification system cartridge sealing, achieving efficient, stable and reliable sealing of specialized cartridges. It can be used alone in the laboratory or integrated into an automation system. When used as a stand-alone instrument, it does not need to be connected to a computer. The film sealing can be done through the built-in operating system, which only needs to place and remove the cartridges.



Features

- Support multiple cartridge sealing, adjustable film length.
- User-friendly operation interface, 7-inch color touch screen.
- Editable and pre-stored sealing solution, effectively saving time.
- Built-in electronic vacuum pump, eliminating the need for an external air source, making installation and transfer more flexible and convenient.
- With Ethernet port, it can be connected to an automation system.
- Equipped with automatic standby function, it can reduce energy consumption and effectively delay instrument aging.

Specification

Model		SealBio-3
Product name		Automated plate heat sealer
Support consumables		AS6.201.0000370, 2 mL cartridge AS6.201.0000360, 8 mL cartridge AS6.201.0000350, 15 mL cartridge AS6.201.WX00310, 20 mL cartridge
Support roll film	Film type	Puncturable film
	Film width	78 mm
Film sealing temperature	Temperature range	RT. ~200 °C
	Temperature control accuracy	±1 °C
	Accommodative amplitude	1 °C
Pre-heating time		≤5 min
Cycle time		<20 s / time
Adjustable film sealing time	Time range	0.5~9.9 s
	Accommodative amplitude	0.1 s
Air source method		Built-in air source
Port		1×USB-B port and 1×Ethernet port
Power supply		AC100~240 V, 50 / 60 Hz
Maximum power		450 W
Software operation		7-inch touch screen software (resolution 1024*600) / edit sealing scheme / prestored sealing scheme
Safety		Standby function (low power mode) / detection of plate / detection of roll film

FCM-2

Film Cutting Machine

FCM-2 film cutting machine is designed for automatic cutting after sealing film of Leap-Pure S24, H24, R16 series nucleic acid purification system cartridges, which can cut the sealing film of 4 cartridges in one run. Adopt the method driven by the screw stepper motor to realize the automatic film cutting for nucleic acid cartridges. The sealed shell ensures safer operation of the machine.



Features

- Easy to operate, only two buttons.
- High safety, the hatch door can be closed when not running, to prevent human hands from reaching into the machine and scratching.
- With the sealer, you can directly put the cartridge of the sealed film into the film cutting machine with the adapter.
- Longer life, free-rotating blades wear more evenly, no need to change tools frequently.

Specification

Support consumables	AS6.201.0000370, 2 mL cartridge AS6.201.0000360, 8 mL cartridge AS6.201.0000350, 15 mL cartridge AS6.201.WX00310, 20 mL cartridge
Ambient temperature	-20 °C~55 °C
Relative humidity	≤70 %
Power supply	AC 100 V-240 V 50 / 60 Hz
Maximum power (W)	10
Film cutting time (s)	7
Instrument weight (kg)	6.6

Ordering Information

Code	Product description
AS-17010-00	FCM-2 film cutting machine
AS-17011-01	Adapter for 2 mL cartridges
AS-17011-02	Adapter for 8&15 mL cartridges
AS-17011-03	Adapter for 20 mL cartridges

FCM-3

Film Cutting Machine

FCM-3 film cutting machine is designed for automatic cutting after sealing film of Auto-Pure 20A / 20B / 24D, Auto-Pure 10B / 10BS, Auto-Pure 2400 / 2400M series nucleic acid purification system cartridges, which can cut the sealing film of 5 cartridges in one run. Adopt the method driven by the screw stepper motor to realize the automatic film cutting for nucleic acid cartridges. The sealed shell ensures safer operation of the machine.



Features

- Easy to operate; To push the button once and the workstation will move back and forth once.
- The motor have a self-locking function, to protect operator from any hurt risks.
- Adapted to the film sealer blocks. After sealing and take it onto the machine, then the film can be cut.
- The waste produced during the cutting process can be taken out of the device automatically.

Specification

Support consumables	3 mL, 5 mL, 10 mL cartridges for Auto-Pure series nucleic acid purification system
Ambient temperature	-20 °C~55 °C
Relative humidity	≤70 %
Power supply	AC 100 V-240 V 50 / 60 Hz
Maximum power (W)	10
Film cutting time (s)	7
Instrument weight (kg)	6.6

Ordering Information

Code	Product description
AS-17020-00	FCM-3 film cutting machine
AS-17021-01	Adapter for 3 mL / 5 mL / 10 mL cartridges

Seal Film

Seal Film Series



AS-F03NL composite aluminum film, AS-F19B heat seal puncturable aluminum film can be suitable for SealBio-1 automated plate heat sealer.

Heat Seal Film

Medical seal film, with the advantages of alcohol resistance, good sealing and temperature resistance, clean and tidy removal without film residue, is a special seal film for 96 deepwell plates.

Code	Product name	Material	Thickness	Width	Length
AS-F03L	Composite aluminum film	Al + PP	0.11 mm	113 mm	150 m
AS-F03NL	Composite aluminum film	Al + PP	0.11 mm	80 mm	300 m

Pressure Sensitive Film

It is a high transmittance pressure-sensitive film used for PCR experiments, consisting of one layer of fluorine release film and one layer of transparent pressure-sensitive film glued together with silicone gel. It can avoid cross-contamination between wells in PCR reactions and is a simple and fast film for sealing microplates.

Code	Product name	Material	Thickness	Width	Length
AS-F16R	High transmittance pressure sensitive film	Composite pressure sensitive film	95 μ m	80 mm	51 m

Adhesive Film

It is a high transmittance adhesive film used for PCR experiments, with good sealing performance and no residue when tearing off. It can avoid cross-contamination between wells in PCR reactions and is a simple and cost-effective film for sealing microplates.

Code	Product name	Material	Thickness	Width	Length
AS-F15R	High transmittance adhesive film	High transparent polypropylene	100 μ m	80 mm	51 m

Puncturable Film

Suitable for various microplates. It is easy to use the tip of manual or automated equipment to puncture the film.

Code	Product name	Material	Thickness	Width	Length
AS-F08C	Adhesive puncturable aluminum film	Aluminum foil	50 μ m	80 mm	100 m
AS-F18R	Pressure sensitive puncturable aluminum film	Aluminum foil	60 μ m	80 mm	51 m
AS-F19C	Heat seal puncturable aluminum film	Al	30 μ m	115 mm	200 m
AS-F19B	Heat seal puncturable aluminum film	Al	30 μ m	80 mm	200 m

VI

Laboratory Instrument

Bioprep-6 / 24 / 24R

Homogenizer

Bioprep series is a fast and effective homogenizer with function of grinding, lysis and homogenizing by three-dimensional vibration and the coordination of the grinding beads (glass beads, silica beads, metal beads etc.). Effective to homogenize the animal or plant tissue, bacteria, fungus and so on. It also has extraordinary power for processing hard lysis samples such as spores, hair, bones, feces, soil etc. With the use of relevant kits, it can quickly, efficiently and steadily extract DNA / RNA / protein from samples in bulk, and preserve the integrity of biomacromolecule.



Bioprep-6



Bioprep-24



Bioprep-24R

Features

- Available to lysis most of biological samples and preserve the integrity of biomolecule (DNA, RNA and protein) and pharmaceutical molecule.
- Can process simultaneously:
 - 6×2 mL samples / 2×5 mL samples - Bioprep-6
 - 24×2 mL samples / 12×5 mL samples - Bioprep-24
 - 24×2 mL samples / 12×5 mL samples - Bioprep-24R
- Choose different grinding beads and programs according to different samples.
- Accurate setting of lysis time and speed, total 50 programs can be saved.
- Disposable tubes ensure no cross-contamination or sample degradation.
- Multiple material and diameter beads for the choice of different type of samples.
- Not only saving time and effort, but also smaller differences between batches.
- Safety:
 - Equipped with open lid protection and emergency braking function. Device will stop running automatically when the lid open or program error for the safety operation.

Method Comparison

	Traditional method	Homogenizer
Sample preparation	<ul style="list-style-type: none"> • Liquid nitrogen grinding: the mortar needs to be replaced when processing different samples, and the operation is dangerous. • Samples are grinded one by one, time-consuming and labor-intensive. • Cross-contamination is easy to occur during grinding. 	<ul style="list-style-type: none"> • No liquid nitrogen treatment is required, just put the sample cut into the grinding tube, and the machine automatically grinds. • Processing multiple samples at the same time makes the operation easier. • Single sample and single operation to avoid cross-contamination. • After putting the sample into the grinding tube, it is recommended to keep the grinding tube at low temperature (below -40 °C) for 12 hours before taking it out for homogenization, so that the homogenization effect will be better.
Grinding effect	Operation difference and inconsistent grinding effect.	Processing multiple samples at the same time, good homogeneity.

01 Holder and Adapter (Bioprep-6)



Tray of 6×2.0 mL tubes



Tray of 2×5.0 mL tubes



03 Rotor Adapter (Bioprep-24 / 24R)



24×2.0 mL rotor



12×5.0 mL rotor

02 Application

- Suitable for homogeneous lysis of various plant tissues including roots, stems, leaves, flowers, fruits, seeds, etc.
- Suitable for homogeneous lysis of various animal tissues including brain, organs, muscles, bones, glands, etc.
- Suitable for homogeneous lysis of samples such as fungi and bacteria.
- Suitable for grinding and lysis of food and drug ingredient analysis experiments.
- Suitable for grinding and lysis of samples such as spores, hair, feces, soil, etc.
 - RT-PCR and differential display
 - Northern blot analysis, qPCR and microarrays
 - Library synthesis and southern blots
 - Verification of food safety
 - Optimization of recombinant protein expression
 - Environmental surveys

04 Key Points for Selecting Grinding Beads

- The higher the hardness and toughness of the sample, the greater the density and diameter of the selected grinding beads.
- Multiple grinding beads can also be used to homogenize the same sample.

Usually choose beads close to the size of the sample particles, and high density of the first choice.

Grinding beads can be used repeatedly within a limited range by soaking them in cleaning agents for a long time, then rinsing them repeatedly with clean water, and finally rinsing them with pure water and drying them before use.

05 Grinding Tubes

- Bioprep-6: simultaneous processing 6×2 mL / 1.5 mL / 0.5 mL tubes or 2×5 mL tubes.
- Bioprep-24 / 24R: simultaneous processing 24×2 mL / 1.5 mL tubes or 12×5 mL tubes.
- The grinding tubes must be with high toughness and low temperature resistance.

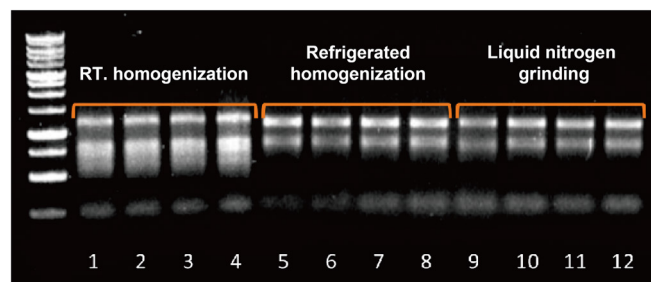
Bioprep-24R Product Introduction

Bioprep-24R refrigerated homogenizer has the internal compressor which was upgraded on the basis of normal Bioprep-24 homogenizer. Partial active ingredients will be negatively affected when use the conventional methods to homogenize most of the soft or sensitive samples under room temperature, while the low temperature can prevent this situation. Therefore the cooling technique is the key effective method to save the complete sample. In addition, the sample will change more crisp which can be homogenized easily and efficiently. Thus, Bioprep-24R refrigerated homogenizer plays an important role in the extraction progress of RNA, DNA and the protein activity determination.

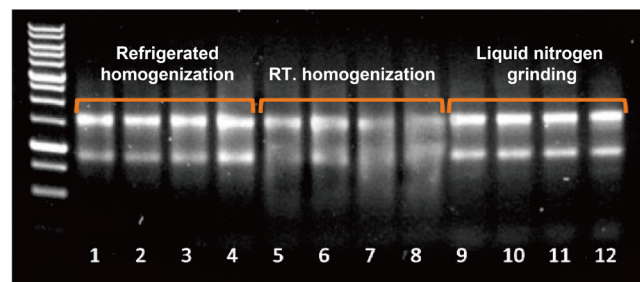
- The lowest temperature: -10 °C.
- Internal turbo fan in the homogenized cavity can keep the temperature uniformity within 2 °C.
- Environment friendly for compressor.
- The refrigerated function effectively prevents the reduction of sample activity which caused by the high temperature when extracting the RNA, Protein etc.
- Has the dry homogenization and wet homogenization function.

Bioprep-24R Extraction Effect

Extraction Effect from Animal Tissues



Extraction Effect from Plant Tissues



RNA Extraction Effect from Animal Tissues

Material	Mouse liver											
No.	1	2	3	4	5	6	7	8	9	10	11	12
Mass (mg)	59	62	60	63	61	62	63	60	59	61	58	62
Sample pre-processing	Refrigerated homogenization				RT. homogenization				Liquid nitrogen grinding			
Nucleic acid extraction	Trizol precipitation method											
RNA (ng/μL)	1252	1828	1735	2057	1728	1643	1649	1600	801	843	832	856
A260 / 280	2.02	2.05	2.06	2.06	2.05	2.01	2.04	2.02	1.98	1.92	1.95	1.97
A260 / A230	2.30	2.05	2.30	2.27	2.29	2.28	2.28	2.28	2.20	2.24	2.18	2.19
Volume	80 μL											

RNA Extraction Effect from Plant Tissues

Material	Plant leaves (<i>Pachira macrocarpa</i>)											
No.	1	2	3	4	5	6	7	8	9	10	11	12
Mass (mg)	51	50	52	52	51	50	50	49	50	57	56	56
Sample pre-processing	Refrigerated homogenization				RT. homogenization				Liquid nitrogen grinding			
Nucleic acid extraction	Trizol precipitation method											
RNA (ng/μL)	475	465	394	408	491	486	469	473	272	302	307	263
A260 / 280	2.05	2.05	2.03	2.03	2.06	2.03	2.07	2.07	2.05	2.06	2.05	2.04
A260 / A230	1.87	1.83	1.82	1.86	1.93	1.90	2.07	1.96	2.12	2.13	2.04	1.93
Volume	80 μL											

Summary and Analysis

By comparing the measured RNA concentration and electropherogram, it can be analyzed that the RNA extracted by the normal temperature homogenizer will be discrete, while the RNA extracted by refrigerated homogenization and liquid nitrogen grinding is complete and not discrete, but from the concentration and total amount, refrigerated homogenization extraction is higher than liquid nitrogen grinding. After many tests on different samples, we found that the effect of refrigerated homogenizer for RNA extraction is equivalent to that of liquid nitrogen grinding, but for samples with soft materials, the effect of refrigerated homogenization is slightly worse than that of liquid nitrogen grinding, which is mainly because the liquid nitrogen immersion makes the sample brittle and ground more fully.

Specification

Model	Bioprep-6	Bioprep-24	Bioprep-24R
Temperature range	/	/	-10 °C~40 °C
From RT. to 0 °C	/	/	<30 min
Temperature uniformity	/	/	≤±2 °C
Display	LCD	OLED	OLED
Speed range (m/s)	4.00 m/s~7.00 m/s, increment 0.05 m/s	4.00 m/s~7.00 m/s, increment 0.05 m/s	4.00 m/s~7.00 m/s, increment 0.05 m/s
Speed range (rpm)	2500 rpm~4350 rpm, increment 10 rpm	2430 rpm~4260 rpm, increment 10 rpm	2430 rpm~4260 rpm, increment 10 rpm
Cycle duration	1 s -- 90 s, increment 1 s	1 s -- 90 s, increment 1 s	1 s -- 90 s, increment 1 s
Pause time	1 s -- 90 s, increment 1 s	1 s -- 120 s, increment 1 s	1 s -- 120 s, increment 1 s
Cycle	10	10	10
Stored program	1	50	50
Sample volume	6×2 mL / 1.5 mL, 2×5 mL	24×2 mL / 1.5 mL, 12×5 mL	24×2 mL / 1.5 mL, 12×5 mL
Acceleration / deceleration time	<2 s	<4 s	<4 s
Noise	<65 db	<70 db	≤65 db
Wearing part	No	No	No
Rotor	Rotor for 2 mL / 5 mL (standard)	Rotor for 2 mL (standard), rotor for 5 mL (optional)	Rotor for 2 mL (standard), rotor for 5 mL (optional)
Power	150 W	500 W	1000 W
Dimension (W×D×H)	354 mm×218 mm×206 mm	280 mm×360 mm×385 mm	330 mm×520 mm×400 mm
Weight (kg)	8.9 kg	25 kg	40.0 kg
Power supply	AC 100~240 V, 50 / 60 Hz	AC 100~240 V, 50 / 60 Hz	AC 100 / AC 240 V, 50 / 60 Hz

Ordering Information

No.	Code	Product description
01	AS-13010-00	Bioprep-24 homogenizer
02	AS-13020-00	Bioprep-6 homogenizer
03	AS-13030-00	Bioprep-24R homogenizer (w/cooling)
04	AS-13011-01	Rotor for 24×2.0 mL (Bioprep-24 / Bioprep-24R)
05	AS-13011-02	Rotor for 6×5.0 mL (Bioprep-24) -- stop production
06	AS-13011-30	Rotor for 12×5.0 mL (Bioprep-24 / Bioprep-24R)
07	AS-13021-01	Holder for tubes (Bioprep-6)
08	AS-13021-02	Adapter for 3×2.0 mL (Bioprep-6)
09	AS-13021-03	Adapter for 5.0 mL (Bioprep-6)
10	AS-13021-04	DC 24 V, 6 A adapter (Bioprep-6)

No.	Code	Product description
11	AS-13011-03	2.0 mL tube
12	AS-13011-04	5.0 mL tube
13	AS-13011-05	Φ1.4 mm silica beads
14	AS-13011-06	Φ2.8 mm silica beads
15	AS-13011-07	Φ3 mm metal beads
16	AS-13011-08	Φ6 mm metal beads
17	AS-13011-09	Φ0.2 mm glass beads
18	AS-13011-10	Φ0.5 mm glass beads
19	AS-13011-12	Φ3.0 mm glass beads
20	AS-13011-13	Φ1.4 mm metal beads

iCen-24 / iCen-24R

High Speed Centrifuge



iCEN-24



iCEN-24R Refrigeration Type

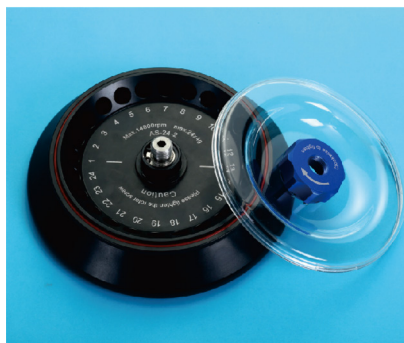
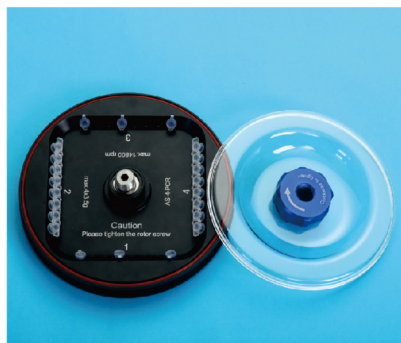
Features

- Max. rotor capacity: 24×1.5 mL / 2.0 mL.
Max. speed: 21,400×g (15000 rpm).
- Safe and reliable, various safety protections conforming CE safety standard.
- Imported motor, maintenance free.
- Soft-brake function to prevent resuspension and protect sensitive samples.
- Automatic lid opening at the end of run-prevents sample warming and allows easy access to samples (iCEN-24).
- Separate short-spin key for quick centrifugation.
- 3 types of rotors are available, suitable for 1.5, 2.0, 5.0 mL tubes and 0.2, 0.5 PCR strip tubes.
- Key operation, simple parameter settings.
- iCEN-24 gas ventilation and cooling design ensures minimum temperature rise of samples.

iCEN-24R Unique Features

- In static precooling mode, when the centrifuge cover is closed, it automatically starts to cool. In case of no sample, the temperature of rotor and chamber shall be rapidly reduced to the set temperature.
- Temperature control range: -10 °C to 40 °C.
- Strong cooling capacity, can maintain 4 °C at the max. speed.
- Rapid cooling speed, from RT. to 4 °C in less than 20 min.

Accessory Information

24×1.5 mL / 2.0 mL
Rotor4×8×0.2 mL PCR
PCR Strip Rotor12×5 mL
Rotor

Specification

Model	iCEN-24	iCEN-24R
Speed (rpm)	500-15000 rpm (increment 100 rpm)	500-15000 rpm (increment 100 rpm)
Max. centrifugation medium density	1.2 g/mL	1.2 g/mL
Acceleration and deceleration time (soft off)	15 s	15 s
Acceleration and deceleration time (soft on)	45 s	45 s
Temp. control accuracy (@ 4 °C)	/	±2 °C
Cooling time to 4 °C	/	≤20 min
Temperature range	/	-10 °C to +40 °C
Noise	≤62 db	<60 db
Power	350 W	500 W
Dimension (L×W×H) mm	260×410×225 mm	300×500×320 mm
Weight (including rotor)	14 kg	28 kg
Timer	1 s-99 min 59 s (short-spin)	1 s-99 min 59 s (short-spin)
Power supply	AC 100-120 V / AC 200-240 V 50-60 Hz	AC 100-120 V / AC 200-240 V 50-60 Hz

Rotor Parameter

Max. capacity	24×1.5 mL / 2.0 mL	4×PCR strip rotor	12×5 mL (suitable for round bottom tubes) rotor
Max. rotor radius	85 mm	68 mm	85 mm
Max. RCF	100-21400×g	100-17100×g	100-21400×g

Ordering Information

Code	Product description
AS-08120-00	iCEN-24 high speed centrifuge, AC 100 V-120 V / AC 200 V-240 V, 50-60 Hz
AS-08130-00	iCEN-24R high speed refrigerated centrifuge, AC 100 V-120 V / AC 200 V-240 V, 50-60 Hz
AS-08121-01	24×1.5 mL / 2.0 mL rotor
AS-08121-02	4×8×0.2 mL PCR strip rotor
AS-08121-03	12×5 mL rotor
AS-08041-01	Adapter for 0.5 mL tube
AS-08041-02	Adapter for 0.2 mL tube

Mini-15K

High Speed Centrifuge



Mini-15K Rotor

Features

- Unique airflow guide to keep samples at low temperature. After 30 minutes of running at the max. speed, the temperature rise only 10 °C.
- Sensitive and efficient speed control, takes only 15 s to rise to the max. speed, and 15 s to drop from the max. speed to 0.
- High-strength aluminum alloy rotor can be sterilized at high temperature and high pressure to prevent pollution.

Specification

Model	Mini-15K
Speed (rpm)	14,500 rpm
Max. RCF	14,000×g
Timer	20 sec~99 min
Acceleration time to max. speed	15 s
Deceleration time from max. speed	15 s
Dimension (L×W×H) mm	270×230×155 mm
Power	100 W

Ordering Information

Code	Product description
AS-08110-00	Mini-15K high speed centrifuge, AC 100-240 V, 50 / 60 Hz, 3 A
AS-08041-01	Adapter for 0.5 mL tube
AS-08041-02	Adapter for 0.2 mL tube

Mini-6KC / Mini-6KS

Mini Centrifuge



Mini-6KC

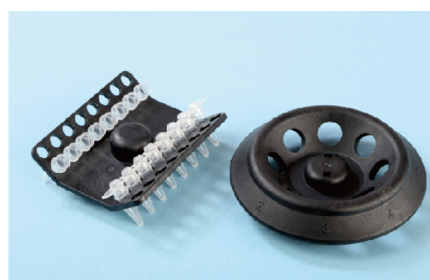


Mini-6KS

Features

- Composite shell, shatter-resistant.
- The electronic braking system for rapid sample processing.
- Quick release rotor tub, allows for easy rotor exchange.
- Mini-6KC / Mini-6KS two speed options: 4,000 & 6,000 rpm.
- Mini-6KC include 2 quick release interchangeable rotors.
--8×1.5 / 2.0 mL rotor --4×8×0.2 mL PCR strip rotor
- Mini-6KS: 3-in-1 rotor design, high capacity and time-saving.
--6×1.5 / 2.0 mL tube --6×0.5 mL tube --16×0.2 mL PCR strip tube

Accessory Information



Mini-6KC Quick Release Rotor



Mini-6KS 3-in-1 Rotor



Two Speed Options

Specification

Model	Mini-6KC	Mini-6KS
Rotor	8×1.5 / 2.0 mL rotor 4×8×0.2 mL PCR strip rotor 8 or 32×0.2 mL rotor 8×0.5 mL rotor	"3-in-1" rotor design, no need to replace 6×1.5 / 2.0 mL rotor 6×0.5 mL rotor 16×0.2 mL PCR strip rotor
Speed	4000 rpm & 6000 rpm	4000 rpm & 6000 rpm
Max. RCF	1,200×g (4,000 rpm) 2,000×g (6,000 rpm)	1,200×g (4,000 rpm) 2,000×g (6,000 rpm)
Power supply	AC 100-240 V, 50/60 Hz	AC 100-240 V, 50/60 Hz

Ordering Information

Code	Product description
AS-08020-00	Mini-6KC mini centrifuge, AC 100-240 V, 50 / 60 Hz
AS-08030-00	Mini-6KS mini centrifuge, AC 100-240 V, 50 / 60 Hz
Mini-6KC	
AS-08021-01	8×1.5 mL / 2.0 mL rotor
AS-08021-02	4×8×0.2 mL PCR strip rotor
AS-08041-01	Adapter for 0.5 mL tube
AS-08041-02	Adapter for 0.2 mL tube
Mini-6KS	
AS-08031-01	3-in-1 rotor

Mini-6K / 7K / 10K

Mini Centrifuge



Specification

Model	Mini-6K	Mini-7K	Mini-10K
Rotor	6×1.5 mL / 2.0 mL rotor 2×8×0.2 mL strip rotor	6×1.5 mL / 2.0 mL rotor 2×8×0.2 mL strip rotor	6×1.5 mL / 2.0 mL rotor
Speed	6,000 rpm	7,000 rpm	10,000 rpm
Max. RCF	2,000×g	2,300×g	5,000×g
Power supply	AC 100-240 V, 50 / 60 Hz	AC 100-240 V, 50 / 60 Hz	AC 100-240 V, 50 / 60 Hz

Ordering Information

Code	Product description
AS-08060-00	Mini-6K centrifuge, AC 100-240 V, 50 / 60 Hz
AS-08070-00	Mini-7K centrifuge, AC 100-240 V, 50 / 60 Hz
AS-08080-00	Mini-10K centrifuge, AC 100-240 V, 50 / 60 Hz
AS-08061-01	Allen wrench
AS-08061-02	6×1.5 mL / 2.0 mL rotor
AS-08061-03	2×8×0.2 mL strip rotor
AS-08061-04	Slide rotor
AS-08041-01	Adapter for 0.5 mL tube
AS-08041-02	Adapter for 0.2 mL tube

MPC-P25 / Mini-P25

Microplate Centrifuge

MPC-P25

- Unique design for the horizontal rotor centrifuge.
- Short-spin and timing of two operations make the tests more convenient.
- Braking time from max. speed: less than 30 sec.
- Timer can be set up to 10 minutes.
- Streamlined appearance and transparent lid design.
- It can accept below formats:
 - 96-well, 384-well PCR plates (skirted or non-skirted)
 - 96-well Elisa plates
 - 8×0.2 mL PCR strip tubes or 0.2 mL PCR tubes



MPC-P25

Mini-P25

- Quickly spin down droplets hanging walls.
- Use before PCR to improve amplification.
- Accept skirted, non-skirted and all standard PCR plates.



Mini-P25

MPC-P25 Operation



Skirted PCR Plates



Elisa Plates



Skirted, Semi-Skirted or Non-Skirted PCR Plates and PCR Tubes

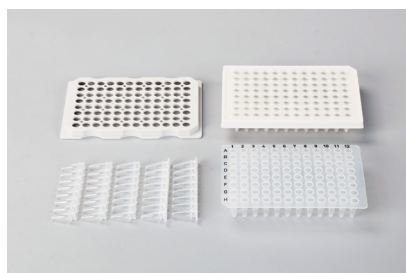


8×0.2 mL PCR Strip Tubes or 0.2 mL PCR Tubes

Accessories & Consumables



MPC-P25: Adaptor for PCR Plates (Skirted, Semi-Skirted and Non-Skirted)



MPC-P25: Adaptor for 8×0.2 mL PCR Strip Tubes or 0.2 mL PCR Tubes

Specification

Model	MPC-P25	Mini-P25
Max. speed	2,200 rpm	2,500 rpm
Max. RCF	480×g	500×g
Capacity	2×PCR plates / Elisa plate / 24×PCR strip tubes / 192×0.2 mL PCR tubes	2×PCR plates
Weight	3.6 kg	2.1 kg
Dimension (L×W×H) mm	290×360×140 mm	190×220×186 mm
Power supply	AC 220 V / AC 120 V, 50 / 60 Hz	AC 220 V / AC 120 V, 50 / 60 Hz

Ordering Information

Code	Product description
AS-08090-00	MPC-P25 mini-plate centrifuge
AS-08091-01	Adaptor for PCR plates, skirted, semi-skirted and non-skirted
AS-08091-02	Adaptor for 8×0.2 mL PCR strip tubes or 0.2 mL PCR tubes
AS-08010-00	Mini-P25 microplate centrifuge

MS-3000 / MSC-3000

Thermo Shaker Incubator

MS-3000 / MSC-3000 is an upgrade of the existing thermo shaker incubator operation mode. Different from the common instrument parameter setting through membrane keys, MS-3000 / MSC-3000 uses 4.3-inch color LCD screen combined with the graphical operation interface to give users a better experience. Various program editing options, such as shaking start time, cycle steps, heating rate, etc., help to find the best experimental conditions.

Convenient block replacement method, only need to flip the block handle to quickly replace. In addition, thermo lid accessories with a magnetic port design can effectively improve the temperature uniformity in the test tube, avoid changes in the concentration of reagents in the test tube caused by liquid evaporation and condensation, and ensure the stability of the reaction conditions.



Features

01 Stable Performance and Long Service Life

- Microprocessor control, good temperature control linearity, accurate shaking speed, small fluctuation.
- DC brushless motor drive, long service life, maintenance-free.
- Built-in over-temperature protection device, more reliable to use.

02 Excellent Performance, Precise Temperature Control

- Full power heating or other heating rate gears can be chosen to prevent the experiment from failing due to uneven temperature changes.
- Optional thermo lid accessories can effectively improve the temperature uniformity in the test tube.
- Optional full power cooling and other cooling rate gears.

03 Multiple Block Choices, Faster Loading and Unloading

- Various blocks are available, and can be customized.
- New designed method of block loading and unloading, blocks can be replaced without tools.

04 Open Design, More Comprehensive Program Settings

- Various heating methods can be chosen according to the experimental needs.
- Shaking method can be set according to requirements, and both forward and reverse rotation can be set.
- Program continuous operation function, multiple programs are connected to each other, no need to set repeatedly.
- MSC-3000 low-temperature storage function, the program is completed, and the samples can be automatically stored in low-temperature.

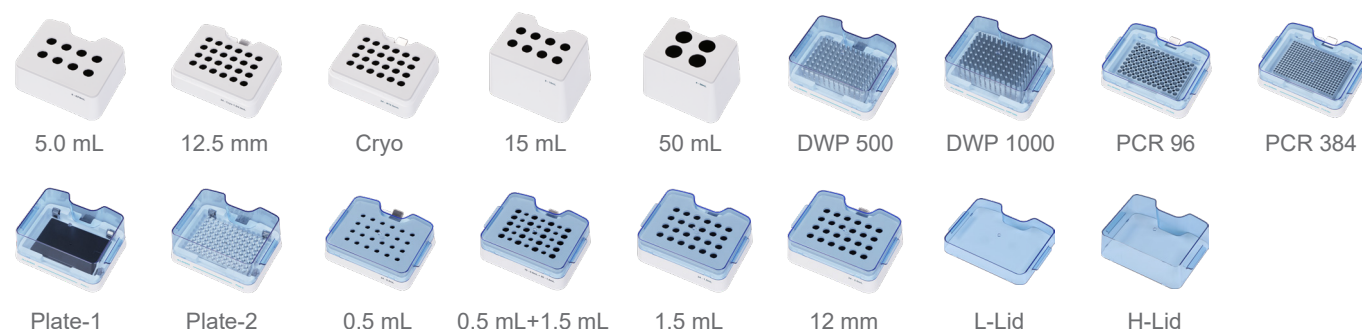
05 Smarter and Easier to Use

- 4.3-inch color LCD screen display, intuitive and easy to operate.
- Power failure self-recovery function, the device can automatically resume operation according to the originally set procedure after power failure recovery.
- Various standard sample blocks are available, and the blocks can be automatically identified.

Suitable Block: MateB Series

According to different needs, Allsheng has designed their own blocks for consumables such as 0.2 mL to 50 mL centrifuge tubes, MTP, DWP, 96 / 384 PCR plates and so on.

All blocks are equipped with a convenient replacement mechanism, making block replacement quick and easy. No tools required, just press the handle on the rear of the block to remove the block in seconds. In addition, the thermal insulation block considers the user's safety and effectively prevents burning fingers.



Optional Performance Component: ThermoLid

When incubating test tubes, PCR plates, etc., condensation will form on the tube walls and caps. Allsheng new generation of temperature control and mixing instrument with ThermoLid technology that reliably prevents condensation inside the tube, allowing consistent sample concentrations over the incubation time.

Thermo Lid



Effectively prevent reagent evaporation, improve the uniformity of concentrations

Installation and Wiring



Magnet port, easy and fast installation; stable data transmission to ensure thermo lid performance

Height Adjustment



Compatible with various specifications of centrifuge tubes; can be used for up to 5 mL centrifuge tubes

- ThermoLid has height-adjustable technology, which makes the thermal lid fit on the top of the sample tube and closely contact with the sample, providing more precise temperature control, enabling better heat transfer anywhere in the sample tube, and improving temperature uniformity for safe sample heating.
- Links with automatic identification and user-friendly operation.
- Obtain constant reaction conditions for best results.
- ThermoLid can be used with various blocks that load tubes below 5 mL, such as 0.5 mL, 1.5 mL, 5 mL and 96 PCR plates.

Specification

Model	MSC-3000	MS-3000
Type	Heating / cooling / mixing	Heating / mixing
Temp. control range	0 °C~105 °C	RT. +5 °C~105 °C
Time setting	99 h 59 min / 99 min 59 s	99 h 59 min / 99 min 59 s
Temp. control accuracy @20 °C~50 °C	±0.5 °C	±0.5 °C
Temp. uniformity @20 °C~50 °C	±0.5 °C	±0.5 °C
Display accuracy	0.1 °C	0.1 °C
Heating time 20 °C~100 °C	≤15 min	≤15 min
Cooling time 100 °C~20 °C	≤15 min	/
25 °C~4 °C [1]	≤20 min	/
20 °C~0 °C [2]	≤20 min	/
Heating rate gear [3]	5 gears can be set	5 gears can be set
Cooling rate gear [4]	4 gears can be set	/
Speed [5]	100-3000 rpm	100-3000 rpm

[1] Indicates detection at AT. ≤25 °C

[2] Indicates detection at AT. ≤20 °C

[3] 5 gears including: MAX, 3 °C/min, 2 °C/min, 1 °C/min, 0.1 °C/min

[4] 4 gears including: MAX, 1 °C/min, 0.5 °C/min, 0.1 °C/min

[5] The maximum speed varies according to the block used

Basic Parameter

Model	MSC-3000	MS-3000
Mixing orbit	3 mm	3 mm
Program number	50	50
A single program can be divided into number	5	5
Cycle number	99	99
Block identification function	Yes	Yes
Display	4.3 inch touch screen	4.3 inch touch screen
Port	USB (program related); 4-pin plug (thermo lid related)	USB (program related); 4-pin plug (thermo lid related)
Thermo lid	Yes (optional)	Yes (optional)
Thermo lid temp. range	RT. +5 °C~110 °C	RT. +5 °C~110 °C
Maximum power	200 W	200 W
Net weight (including blocks)	≤10 kg	≤9 kg
Dimension (W×D×H) mm	220×318×154	220×318×154

Ordering Information

Code	Product description
AS-02080-00	MSC-3000 thermo shaker incubator (heating and cooling type), AC 100-240 V, 200 W
AS-02090-00	MS-3000 thermo shaker incubator (heating type), AC 100-240 V, 200 W

Suitable Block Ordering Information

Code	Type	Description	Max. speed	Max. temp.	Thermo lid available
AS-02081-01	MateB 0.5mL	24×0.5 mL tube	2000 rpm	105 °C	√
AS-02081-02	MateB 1.5mL	24×1.5 mL tube	2000 rpm	105 °C	√
AS-02081-03	MateB 2.0mL	24×2.0 mL tube	2000 rpm	105 °C	√
AS-02081-04	MateB 0.5mL+1.5mL	15×0.5 mL+20×1.5 mL tube	2000 rpm	105 °C	√
AS-02081-05	MateB 5.0mL	8×5 mL tube	1000 rpm	105 °C	√
AS-02081-06	MateB 12mm	24×φ12 mm tube	2000 rpm	105 °C	/
AS-02081-08	MateB Cryo	24×1.5 mL / 2.0 mL cryovial	2000 rpm	105 °C	/
AS-02081-09	MateB 15mL	8×15 mL tube	1000 rpm	105 °C	/
AS-02081-10	MateB 50mL	4×50 mL tube	1000 rpm	105 °C	/
AS-02081-11	MateB Plate-1	96×0.2 mL microplate	3000 rpm	105 °C	√
AS-02081-12	MateB Plate-2	96×2 mL deepwell plate	1000 rpm	105 °C	/
AS-02081-13	MateB PCR 96	96×0.2 mL PCR plate	2000 rpm	105 °C	√
AS-02081-14	MateB PCR 384	384-well PCR plate	3000 rpm	105 °C	√
AS-02081-15	MateB DWP 500	96 / 500 μL deepwell plate	1600 rpm	105 °C	√
AS-02081-16	MateB DWP 1000	96 / 1,000 μL deepwell plate	1600 rpm	105 °C	√
AS-02081-17	MateB L-Lid	L-Lid transparent lid (low) is suitable for MateB 0.5 mL, 1.5 mL, 2.0 mL, 5 mL, Plate-1, Plate-2, PCR96 and PCR384			
AS-02081-18	MateB H-Lid	H-Lid transparent lid (high) is suitable for MateB DWP 500 / 1000			
AS-02081-26	ThermoLid	Thermo lid			

MS-100 / MSC-100

Thermo Shaker Incubator

MS-100 / MSC-100 thermo shaker incubator designed for simultaneous heating, cooling and mixing of small samples. Both of them can be supplied with interchangeable blocks for microtubes.



MS-100

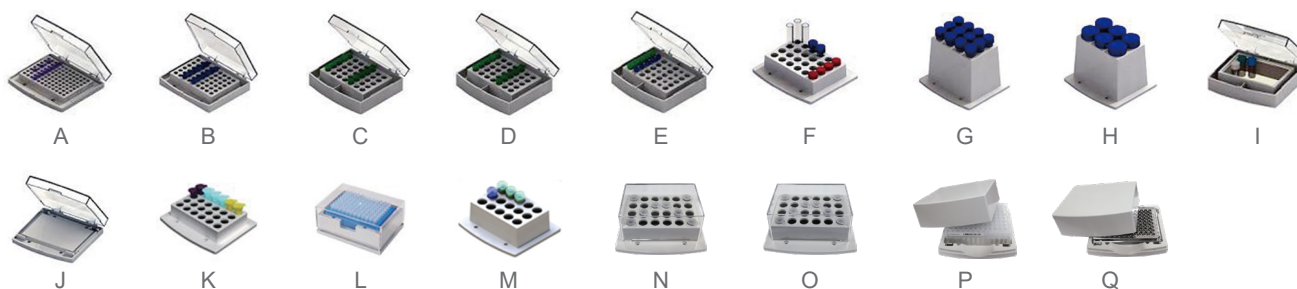


MSC-100

Features

- Power failure self-recovery function, the device can automatically resume operation according to the originally set procedure after power failure recovery.
- Besides heating, MSC-100 has refrigeration function to meet the needs of different users.
- Timing function, freely set the incubation time within 0~100 hours.
- Various standard sample blocks are available, which is easy to be replaced.

MS Series Blocks



Specification

Model	MS-100	MSC-100
Temp. control range	RT. +5 °C~100 °C	0 °C~100 °C (AT. ≤20 °C) 4 °C~100 °C (AT. ≤25 °C) 10 °C~100 °C (AT. ≤30 °C)
Temp. uniformity	≤0.5 °C	≤0.5 °C
Timer range	1 min~99 h 59 min	1 min~99 h 59 min
Temp. control accuracy	±0.5 °C	±0.5 °C
Display accuracy	±0.1 °C	±0.1 °C
Shaking speed	200-1500 rpm*	200-1500 rpm*
Heating time (40 ~ 100 °C)	≤10 min	≤15 min
Cooling time	/	≤20 min (AT. ≤20 °C: 20 °C~0 °C) ≤20 min (AT. ≤25 °C: RT. ~4 °C) ≤20 min (AT. ≤30 °C: RT. ~10 °C)
Mixing orbit	2 mm	2 mm
Dimension (mm)	300×220×170 mm	300×220×170 mm
Weight	7 kg	8.5 kg

*The upper limit of temperature and shaking speed shall be determined according to the block used

Ordering Information

Code	Product description
AS-02010-00	MS-100 thermo shaker incubator, AC 220 V / AC 120 V, 50 / 60 Hz, 150 W
AS-02020-00	MSC-100 thermo shaker incubator, AC 220 V / AC 120 V, 50 / 60 Hz, 250 W

MS-100 / MSC-100 Suitable Blocks

Code	Type	Description	Max. temp.	Max. speed
AS-01051-01	A	96×0.2 mL tube	100 °C	1500 rpm
AS-01051-02	B	54×0.5 mL tube	100 °C	1500 rpm
AS-01051-03	C	35×1.5 mL tube	100 °C	1500 rpm
AS-01051-04	D	35×2.0 mL tube	100 °C	1500 rpm
AS-01051-05	E	15×0.5 mL+20×1.5 mL tube	100 °C	1500 rpm
AS-01051-06	F	24×Dia.≤Φ12 mm tube	100 °C	1200 rpm
AS-01051-07	G	12×15 mL Falcon tube	100 °C	750 rpm
AS-01051-08	H	6×50 mL Falcon tube	100 °C	750 rpm
AS-01051-09	I	103×67×30 mm rectangular bath block	100 °C	1500 rpm
AS-01051-10	J	96×0.2 mL microplate	100 °C	1500 rpm
AS-01051-11	K	24×5 mL tube	100 °C	1200 rpm
AS-01051-12	L	96 deepwell microplate	80 °C	800 rpm
AS-01051-13	M.	15×5 mL Eppendorf tube	100 °C	1200 rpm
AS-01051-14	N	24×2 mL tube	100 °C	1200 rpm
AS-01051-15	O	24×1.5 mL tube	100 °C	1200 rpm
AS-01051-16	P	96×1000 µL deepwell plate	100 °C	1200 rpm
AS-01051-17	Q	MTPs deepwell plate	100 °C	1200 rpm

TMS-200 / TMS-300

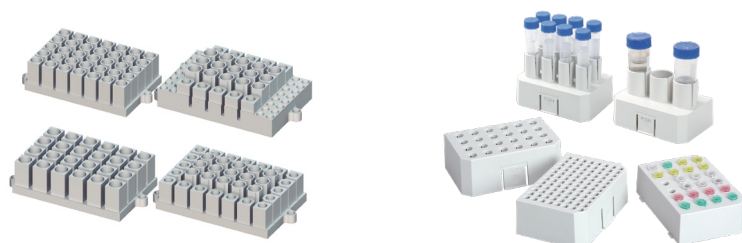
Thermo Shaker Incubator



Features

- Unique anti-vibration technology supports accurate and efficient mixing and temperature control.
- The microprocessor controls temperature, speed and time, with good temperature control linearity, accurate shaking speed, and small variation.
- Adapter plates:
 - Microplates: 96-well, 384-well, 1536-well microplates / deepwell plates / PCR plates.
 - Holders: 0.2 mL PCR tube holders, 0.5 mL tube holders, 1.5 / 2.0 mL tube holders, 15 mL micro tube holders, 50 mL micro tube holders.
 - Blocks: 10 types aluminium blocks for user choosing.

Suitable Blocks



Specification

Model	TMS-200	TMS-300
Shaking speed	300-3000 rpm	300-2000 rpm
Mixing orbit	2 mm	3 mm
Temp. control range	RT. +5 °C~100 °C	
Temp. uniformity	≤0.5 °C	
Timer range	1 min~99 h 59 min	
Temp. control accuracy	±0.3 °C	
Display accuracy	±0.1 °C	
Heating time (25~100 °C)	≤12 min	
Dimension (mm)	230×170×165	
Weight	5.5 kg	

Ordering Information

Code	Product description
AS-02050-00	TMS-200 thermo shaker incubator, AC 100-240 V, 50 / 60 Hz, 150 W
AS-02060-00	TMS-300 thermo shaker incubator, AC 100-240 V, 50 / 60 Hz, 150 W

Suitable Blocks

Code	Type	Description	Max. speed rpm
AS-02051-01	A-200	96×0.2 mL tube	1700 / 1500
AS-02051-02	B-200	54×0.5 mL tube	1700 / 1500
AS-02051-03	C-200	35×1.5 mL tube	1700 / 1500
AS-02051-04	D-200	35×2.0 mL tube	1700 / 1500
AS-02051-05	E-200	15×1.5 mL+20×0.5 mL tube	1700 / 1500
AS-02051-06	F-200	24×Dia. ≤Φ12 mm tube	1500 / 1200
AS-02051-07	G-200	32×0.2 mL+25×1.5 mL tube	1700 / 1500
AS-02051-08	H-200	32×0.2 mL+10×0.5 mL+15×1.5 mL tube	1700 / 1500
AS-02051-09	I-200	103×67×30 mm rectangular bath block	1500 / 1200
AS-02051-10	J-200	96×0.2 mL microplate	1700 / 1500
AS-02051-11	K-200	24×5 mL tube	1500 / 1200
AS-02031-01	MIX-A	96×0.2 mL PCR tube holder	3000 / 2000
AS-02031-02	MIX-B	24×0.5 mL tube holder	3000 / 2000
AS-02031-03	MIX-C	24×1.5 / 2.0 mL tube holder	3000 / 2000
AS-02031-04	MIX-D	8×15 mL tube holder	1100 / 900
AS-02031-05	MIX-E	3×50 mL tube holder	1100 / 900

Note: The number in red means max. speed when this block in TMS-200, and the number in black means max. speed when this block in TMS-300.

MB / MK100-2A / 4A

Thermo Shaker for Microplate / Incubator for Microplate

MK / MB series are commonly used for incubation of microplates and cell culture plates in microplate insects culture, animal and plant cell incubation, ELISA and other experimental processes.



MB100-2A / MK100-2A



MB100-4A / MK100-4A

Features

- Heating plates above and below the microplates, more even heating.
- Exact correspondence of the designed and actual temperature.
- LCD display. It is easy to set up and use.
- Real-time display of time and temperature, safe and reliable.
- MB series have incubation and shaking functions.

Specification

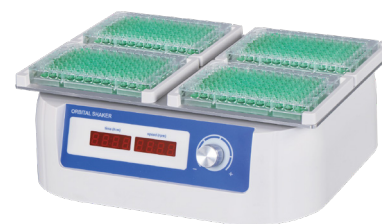
Model	MK100-2A	MB100-2A	MK100-4A	MB100-4A
Temp. control range	RT. +5 °C~70 °C	RT. +5 °C~70 °C	RT. +5 °C~70 °C	RT. +5 °C~70 °C
Timer range	1 min~99 h 59 min	1 min~99 h 59 min	1 min~99 h 59 min	1 min~99 h 59 min
Temp. control accuracy	±0.5 °C	±0.5 °C	±0.5 °C	±0.5 °C
Display accuracy	±0.1 °C	±0.1 °C	±0.1 °C	±0.1 °C
Shaking speed	/	100-1200 rpm	/	100-1500 rpm
Mixing orbit	/	2 mm	/	2 mm
Heating time (20 to 70 °C)	≤20 min	≤20 min	≤20 min	≤20 min
Capacity	2 microplates	2 microplates	4 microplates / deepwell plates	4 microplates / deepwell plates
Dimension (mm)	280×270×150 mm	280×270×150 mm	320×350×185 mm	320×350×185 mm
Weight	4 kg	6.5 kg	8 kg	9 kg

Ordering Information

Code	Product description
AS-01140-00	MK100-2A, AC 100-240 V, 50 / 60 Hz, 150 W
AS-03030-00	MB100-2A, AC 100-240 V, 50 / 60 Hz, 150 W
AS-01060-00	MK100-4A, AC 120 / 220 V, 50 / 60 Hz, 200 W
AS-03020-00	MB100-4A, AC 120 / 220 V, 50 / 60 Hz, 300 W

MX100-4A

Microplate Shaker



The microplate shaker is driven by a DC brushless motor, which is mainly used for microplates (96-well / 384-well plates), cell culture plates (24-well plates, 48-well plates, 96-well plates, etc.) and 1.5 / 2.0 mL centrifuge test tubes and other solutions to mix and shake.

Features

- Continuous or timing operation.
- DC brushless motor for gentle and powerful vibration.
- Orbital of 3 mm for efficient mixing in small sample vessels.
- Simple spring holders for easy and quick plate installation.

Specification

Model	MX100-4A
Shaking speed setting accuracy	10 rpm
Shaking speed	200~1500 rpm standard microplate / 200~1000 rpm deepwell plate or tube holder
Timer range	1 min~99 h 59 min
Mixing orbit	3 mm
Power supply	24 VDC
Dimension (mm)	290×270×120 mm
Weight	6.5 kg

Ordering Information

Code	Product description
AS-04040-00	MX100-4A microplate shaker
AS-04041-01	20×1.5 mL tube holder (optional)
AS-04041-02	20×0.5 mL tube holder (optional)

MTV-100

Multi-Tube Vortex

MTV-100 can mix up to 50 samples at a time. A variety of accessories can be used to meet the needs of different specifications of tube vortex.



Features

- Mix up to 50 samples at the same time.
- Pulsing mode and continuous mode can be freely chosen.
- The microprocessor precisely controls the mixing time and speed.
- Standard tray pad set.

Specification

Model	MTV-100
Mixing orbit	3.6 mm
Shaking speed	500~2500 rpm
Timer range	1 min~99 h 59 min
Maximum weight capacity	4.5 kg
Speed accuracy	10 rpm
Tray dimension (LxW) mm	310×180 mm
Dimension (LxWxH) mm	426×250×480 mm
Weight	21.5 kg
Power	60 W

Ordering Information

Code	Product description
AS-02040-00	MTV-100 multi-tube vortex, AC100~240 V, 1.5 A

Accessory

Code	Type	Description	Dimension (mm)
AS-02041-01	MTV-B01	50×Φ10 mm tube rack	245×132×45 mm
AS-02041-02	MTV-B02	50×Φ12 mm tube rack	245×132×45 mm
AS-02041-03	MTV-B03	50×Φ13 mm tube rack	245×132×45 mm
AS-02041-04	MTV-B04	50×Φ16 mm tube rack	245×132×45 mm
AS-02041-05	MTV-B05	15×Φ25 mm tube rack	245×132×45 mm
AS-02041-06	MTV-B06	15×Φ29 mm tube rack	245×132×45 mm
AS-02041-00	MTV-B00	Tray pad set	305×178.5×25 mm

MTV-1

Mini Vortex

MTV-1 is the smallest vortex on the market, suitable for shaking and mixing samples of various reagents, solutions, chemicals, etc. With standard battery box, it's especially suitable for wild and crowded laboratories.



Features

- Touch mode (short-spin), continuous mode (continuous work for a long time) can be chosen.
- Compact structure, reliable quality.
- Adjustable speed, suitable for centrifuge tubes and test tubes below 15 mL.

Specification

Model	MTV-1
Working mode	Continuous / short-spin
Shaking movement	Orbital
Mixing orbit	3 mm
Speed range	800~2500 rpm
Dimension (mm)	74×91×84 mm
Input power	DC 6 V
Weight	0.35 kg

Ordering Information

Code	Product description
AS-02080-00	MTV-1 mini vortex, DC 6 V, 0.6 W

MK-3000

Dry Bath Incubator

Many experiments require precise temperature control while rapidly heating / cooling. MK-3000 achieves precise control of sample temperature by using Peltier technology. Superior temperature control, excellent mixing performance and easy-to-use software function ensure complete, reliable and repeatable experimental results. With Allsheng MateB series blocks, it can meet your multiple experimental requirements.



Features

- Multi-level heating and cooling rate settings, can select the appropriate method according to the experimental needs.
- Freely programmable, the program runs continuously, and multiple programs are linked to each other.
- Can choose full power heating and cooling, or choose the heating and cooling rate of other gears to prevent the experiment from failing due to uneven temperature changes.
- Optional ThermoLid accessories can effectively prevent condensation on the tube lid and tube walls and improve the temperature uniformity in the test tube.
- 4.3-inch touch screen, intuitive and easy to operate.
- Power-off recovery function, it can automatically run according to the originally set program when the power is restored.
- Multiple blocks are optional and can be automatically identified.

MK-3000 Suitable Blocks

According to different needs, Allsheng has designed their own blocks for consumables such as 0.2 mL to 50 mL centrifuge tubes, MTP, DWP, 96 / 384 PCR plates and so on.

All blocks are equipped with a convenient replacement mechanism, making block replacement quick and easy. No tools required, just press the handle on the rear of the block to remove the block in seconds. In addition, the thermal insulation block considers the user's safety and effectively prevents burning fingers.



Optional Performance Component: ThermoLid

When incubating test tubes, PCR plates, etc., condensation will form on the tube walls and caps. Allsheng new generation of temperature control and mixing instrument with ThermoLid technology that reliably prevents condensation inside the tube, allowing consistent sample concentrations over the incubation time.



Specification

Model	MK-3000
Type	Heating / cooling
Temp. control range	-10 °C~105 °C
Time setting	99 h 59 min / 99 min 59 s
Temp. control accuracy	@20 °C~50 °C ±0.5 °C
Temp. uniformity	@20 °C~50 °C ±0.5 °C
Display accuracy	0.1 °C
Heating time	20 °C~100 °C ≤ 10 min
Cooling time	100 °C~20 °C ≤ 10 min 25 °C~4 °C [1] ≤15 min (25 °C~0 °C) 20 °C~0 °C [2] ≤15 min (25 °C~-10 °C)
Heating rate gear [3]	5 gears can be set
Cooling rate gear	5 gears can be set
Program number	50
A single program can be divided into number	5
Cycle number	99
Block identification function	Yes
Display	4.3-inch touch screen
Port	USB (program related); 4-pin plug (thermo lid related)
ThermoLid	Yes (optional)
Thermo lid temp. range	RT. +5 °C~110 °C
Maximum power	200 W
Net weight (including blocks)	≤ 7 kg
Dimension (W×D×H) mm	220×318×154

[1] Indicates detection at AT. ≤ 25 °C

[2] Indicates detection at AT. ≤ 20 °C

[3] 5 gears including: MAX, 3 °C/min, 2 °C/min, 1 °C/min, 0.1 °C/min

Ordering Information

Code	Product description
AS-01280-00	MK-3000 dry bath incubator (heating and cooling type), AC 100-240 V, 200 W

Suitable Blocks

Code	Type	Description	Max. speed	Max. temp.	Thermo lid available
AS-02081-01	MateB 0.5 mL	24×0.5 mL tube	2000 rpm	105 °C	√
AS-02081-02	MateB 1.5 mL	24×1.5 mL tube	2000 rpm	105 °C	√
AS-02081-03	MateB 2.0 mL	24×2.0 mL tube	2000 rpm	105 °C	√
AS-02081-04	MateB 0.5 mL+1.5 mL	15×0.5 mL+20×1.5 mL tube	2000 rpm	105 °C	√
AS-02081-05	MateB 5.0 mL	8×5 mL tube	1000 rpm	105 °C	√
AS-02081-06	MateB 12 mm	24×Φ12 mm tube	2000 rpm	105 °C	/
AS-02081-08	MateB Cryo	24×1.5 mL / 2.0 mL cryovial	2000 rpm	105 °C	/
AS-02081-09	MateB 15 mL	8×15 mL tube	1000 rpm	105 °C	/
AS-02081-10	MateB 50 mL	4×50 mL tube	1000 rpm	105 °C	/
AS-02081-11	MateB Plate-1	96×0.2 mL microplate	3000 rpm	105 °C	√
AS-02081-12	MateB Plate-2	96×2 mL deepwell plate	1000 rpm	105 °C	/
AS-02081-13	MateB PCR 96	96×0.2 mL PCR plate	2000 rpm	105 °C	√
AS-02081-14	MateB PCR 384	384-well PCR plate	3000 rpm	105 °C	√
AS-02081-15	MateB DWP 500	96 / 500 µL deepwell plate	1600 rpm	105 °C	√
AS-02081-16	MateB DWP 1000	96 / 1,000 µL deepwell plate	1600 rpm	105 °C	√
AS-02081-17	MateB L-Lid	L-Lid transparent lid (low) is suitable for MateB 0.5 mL, 1.5 mL, 2.0 mL, 5 mL, Plate-1, Plate-2, PCR96 and PCR384			
AS-02081-18	MateB H-Lid	H-Lid transparent lid (high) is suitable for MateB DWP 500 / 1000			
AS-02081-26	ThermoLid	Thermo lid			

MK2000

Dry Bath Incubator

MK2000 series dry bath incubator are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting / boiling points and a wide variety of other laboratory procedures.



MK2000-1



MK2000-2



MK2000-2E
Each block can be set
at different temperatures



MK2000-2HL
Can run some
simple PCR tests

Features

- Precise temperature control, fast and safe heating, temperature deviation calibration function.
- Multiple block options, support block customization.
- Convenient block replacement, easy to clean and sterilize.

Special Features of MK2000-2HL:

- Touch screen design, real-time display of temperature and time curves.
- 60 programs can be edited and stored, up to 4 sets of temperature points and time can be programmed.
- Can be used for simple PCR experiments, with temperature and time cycling functions.
- PCR thermo lid technology, dual blocks, with stainless plate.

Suitable Blocks



BH01



BH02



BH03



BH04



BH05



BH06



BH07



BH08



BH09



BH10



BH11



BH12



BH13



BH14



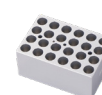
BH15



BH16



BH17



BH18



BH19



BH20



BH21



BH22



BH23



BH24



BH25



BH26

Specification

Model	MK2000-1	MK2000-2	MK2000-2E	MK2000-2HL
Temperature control range	RT. +5 °C~105 °C	RT. +5 °C~105 °C	RT. +5 °C~105 °C	RT. +5 °C~100 °C
Timer range	1 min-99 h 59 min	1 min-99 h 59 min	1 min-99 h 59 min	1 min-99 h 59 min
Temp. stability @100 °C	≤0.5 °C	≤0.5 °C	≤0.5 °C	≤0.5 °C
Uniformity: within the block @37 °C across similar block @37 °C	±0.2 °C /	±0.2 °C ±0.3 °C	±0.2 °C /	±0.2 °C ±0.3 °C
Heating time (25 °C to 105 °C)	≤20 min	≤20 min	≤20 min	≤20 min
Display accuracy	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Block quantity	1	2	2 (Independent)	2
Dimension (L×W×H) mm	250×190×130 mm	365×210×150 mm	365×210×150 mm	420×225×145 mm
Weight	2.5 kg	4.5 kg	4.5 kg	5.5 kg

Ordering Information

Code	Product description
AS-01180-00	MK2000-1, AC 220 V / AC 120 V, 50 / 60 Hz, 100 W
AS-01190-00	MK2000-2, AC 220 V / AC 120 V, 50 / 60 Hz, 200 W
AS-01120-00	MK2000-2E, AC 220 V / AC 120 V, 50 / 60 Hz, 200 W
AS-01210-00	MK2000-2HL (thermo lid), AC 220 V / AC 120 V, 50 / 60 Hz, 200 W

Suitable Blocks

Code	Type	Description
AS-01181-01	BH01	96×0.2 mL PCR tube
AS-01181-02	BH02	45×0.5 mL tube
AS-01181-03	BH03	35×1.5 mL tube
AS-01181-04	BH04	35×2.0 mL tube
AS-01181-05	BH05	15×0.5 mL+20×1.5 mL tube
AS-01181-06	BH06	20×1.5 mL+15×2.0 mL tube
AS-01181-07	BH07	32×0.2 mL+22×0.5 mL+9×1.5 mL tube
AS-01181-08	BH08	20×5 mL tube
AS-01181-09	BH09	20×10 mL tube
AS-01181-10	BH10	12×15 mL tube
AS-01181-11	BH11	6×50 mL tube
AS-01181-12	BH12	96×0.2 mL Elisa plate or 4 slides
AS-01181-13	BH13	Solid block (no holes)
AS-01181-14	BH14	384-well PCR plate
AS-01181-15	BH15	40×Φ6 mm

Code	Type	Description
AS-01181-16	BH16	28×Φ10 mm
AS-01181-17	BH17	24×Φ12 mm
AS-01181-18	BH18	24×Φ13 mm
AS-01181-19	BH19	14×Φ15 mm
AS-01181-20	BH20	14×Φ16 mm
AS-01181-21	BH21	12×Φ19 mm
AS-01181-22	BH22	11×Φ20 mm
AS-01181-23	BH23	6×Φ26 mm
AS-01181-24	BH24	6×Φ28 mm
AS-01181-25	BH25	2×Φ40 mm
AS-01181-26	BH26	2×7-12.5×12.5 cuvette
AS-01181-27	PT1000	External extraction tool
AS-01181-28	T4	Block extraction tool
AS-01211-01	L4	Stainless plate

MK2000-2HL can just use the BH01~BH08, BH12~BH14 blocks, L4 is special for MK2000-2HL

MK200

Dry Bath Incubator

MK200 series maximum temperature can reach 150 °C, which can replace the traditional water bath device. It can be widely used in sample preservation and reaction, DNA amplification and electrophoresis predenaturation, serum coagulation, etc.



MK200-1



MK200-1A



MK200-2



MK200-4

MK200 Series Suitable Blocks



BK01



BK02



BK03



BK04



BK05



BK06



BK07



BK08



BK09



BK10



BK11



BK12



BK13



BK14



BK15



BK16



BK17



BK18



BK19



BK20

Specification

Model	MK200-1	MK200-1A	MK200-2	MK200-4
Temperature control range	RT. +5 °C~150 °C	RT. +5 °C~150 °C	RT. +5 °C~150 °C	RT. +5 °C~120 °C
Timer range	1 min-99 h 59 min	1 min-99 h 59 min	1 min-99 h 59 min	1 min-99 h 59 min
Temp. stability @100 °C	±0.5 °C	±0.5 °C	±0.5 °C	±0.5 °C
Temp. control accuracy @40 °C	±0.3 °C	±0.3 °C	±0.3 °C	±0.3 °C
Temp. control accuracy @120 °C	±1 °C	±1 °C	±1 °C	±1 °C
Heating time (25 °C to 150 °C)	≤30 min	≤30 min	≤30 min	≤30 min
Display accuracy	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Dimension (L×W×H) mm	280×240×110 mm	280×240×110 mm	280×240×110 mm	380×240×110 mm
Block quantity	1	1	2	4
Display screen	LED	LED	LED	LED

Ordering Information

Code	Product description
AS-01080-00	MK200-1, AC 220 V / AC 120 V, 50 / 60 Hz, 200 W
AS-01090-00	MK200-1A, AC 220 V / AC 120 V, 50 / 60 Hz, 200 W
AS-01100-00	MK200-2, AC 220 V / AC 120 V, 50 / 60 Hz, 400 W
AS-01110-00	MK200-4, AC 220 V / AC 120 V, 50 / 60 Hz, 600 W

Suitable Blocks

Code	Type	Description	Dimension (mm)
AS-01081-01	BK01	49×Φ6 mm	96×96×49 mm
AS-01081-02	BK02	49×Φ7 mm	96×96×49 mm
AS-01081-03	BK03	25×Φ10 mm	96×96×49 mm
AS-01081-04	BK04	25×Φ12 mm	96×96×49 mm
AS-01081-05	BK05	25×Φ13 mm	96×96×49 mm
AS-01081-06	BK06	12×Φ15 mm	96×96×49 mm
AS-01081-07	BK07	16×Φ15 mm	96×96×49 mm
AS-01081-08	BK08	12×Φ16 mm	96×96×49 mm
AS-01081-09	BK09	16×Φ16 mm	96×96×49 mm
AS-01081-10	BK10	12×Φ19 mm	96×96×49 mm
AS-01081-11	BK11	16×Φ19 mm	96×96×49 mm
AS-01081-12	BK12	9×Φ20 mm	96×96×49 mm
AS-01081-13	BK13	9×Φ26 mm	96×96×49 mm
AS-01081-14	BK14	4×Φ28 mm	96×96×49 mm
AS-01081-15	BK15	4×Φ40 mm	96×96×49 mm
AS-01081-16	BK16	49×0.5 mL tube	96×96×49 mm
AS-01081-17	BK17	25×1.5 mL tube	96×96×49 mm
AS-01081-18	BK18	25×2.0 mL tube	96×96×49 mm
AS-01091-01	BK19	96×0.2 mL tube	78×114×26 mm
AS-01091-02	BK20	96×0.2 mL ELISA plate	81×123×19 mm

MK-10 / MK-20

Dry Bath Incubator

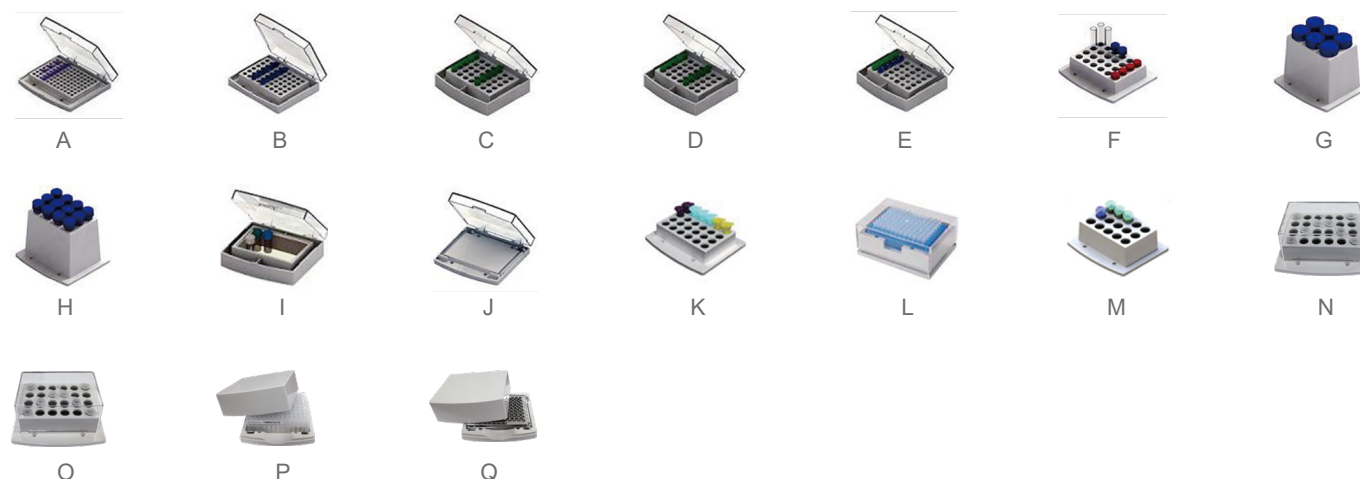
MK-10 dry bath incubator is controlled by microcomputer; MK-20 dry bath incubator is controlled by microcomputer and with semiconductor refrigeration technology. The instrument can be configured with a variety of blocks, which can be widely used in the preservation of samples, preservation and reaction of various enzymes, denaturation of nucleic acids and proteins, PCR reaction, pre-denaturation of electrophoresis, and coagulation of serum.



Features

- Excellent temperature control system and temperature uniformity.
- Real-time temperature display, time decreasing display.
- Convenient block replacement, easy to clean and sterilize.
- The powerful programmable function of MK-20 enables control of multiple temperature points, with up to 5 temperature and time settings and continuous operation.

MK-10 / MK-20 Suitable Blocks



Specification

Model	MK-10	MK-20
Temperature control range	RT. +5 °C-100 °C	-10 °C-100 °C
Timer range	1 min-99 h 59 min	1 min-99 h 59 min
Temp. stability @100 °C	±0.5 °C	±0.5 °C
Display accuracy	±0.1 °C	±0.1 °C
Heating time (25 °C to 100 °C)	≤12 min	≤15 min
Cooling time	/	25 °C~-10 °C ≤15 min (AT. 20 °C) 25 °C~0 °C ≤15 min (AT. 30 °C)
Certificate	CE	CE
Dimension (L×W×H) mm	300×220×180 mm	300×220×180 mm
Weight	2.5 kg	5 kg

Ordering Information

Code	Product description
AS-01040-00	MK-10 dry bath incubator (heating), AC 220 V / 120 V, 50 / 60 Hz, 150 W
AS-01050-00	MK-20 dry bath incubator (heating / cooling), AC 220 V / 120 V, 50 / 60 Hz, 200 W

Suitable Blocks

Code	Type	Description	The highest temp.	The lowest temp.
AS-01051-01	A	96×0.2 mL tube	100 °C	-10 °C
AS-01051-02	B	54×0.5 mL tube	100 °C	-10 °C
AS-01051-03	C	35×1.5 mL tube	100 °C	-10 °C
AS-01051-04	D	35×2.0 mL tube	100 °C	-10 °C
AS-01051-05	E	15×0.5 mL+20×1.5 mL tube	100 °C	-10 °C
AS-01051-06	F	24×≤Φ12 mm tube	100 °C	0 °C
AS-01051-07	G	12×15 mL Falcon	100 °C	0 °C
AS-01051-08	H	6×50 mL Falcon	100 °C	0 °C
AS-01051-09	I	103×67×30 mL bath block	100 °C	0 °C
AS-01051-10	J	96×0.2 mL microplate	100 °C	0 °C
AS-01051-11	K	24×5 mL tube	100 °C	0 °C
AS-01051-12	L	96 deepwell plate	80 °C	8 °C
AS-01051-13	M	15×5 mL Eppendorf tube	100 °C	0 °C
AS-01051-14	N	24×2 mL tube (deepwell)	100 °C	0 °C
AS-01051-15	O	24×1.5 mL tube (deepwell)	100 °C	0 °C
AS-01051-16	P	Deepwell plate 96 / 1000 µL	100 °C	0 °C
AS-01051-17	Q	MTPs and deepwell plate	100 °C	0 °C

K30

Dry Bath Incubator

Round metal blocks and more compact structure, suitable for most centrifuge tubes. Blocks replacement is convenient, easy to clean and disinfect.



Specification

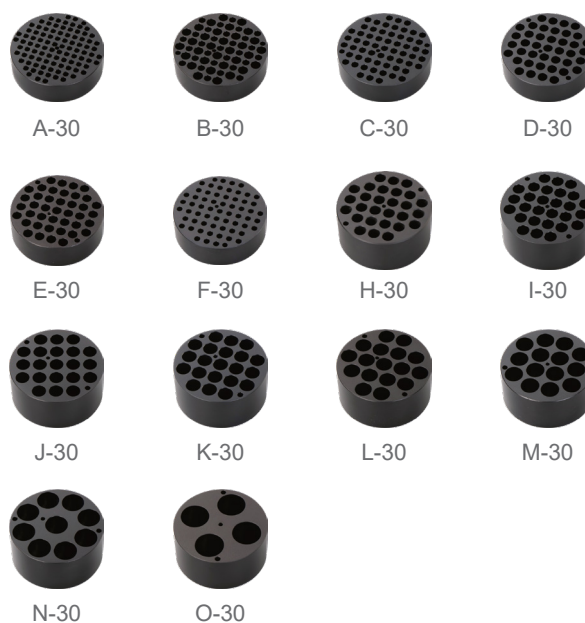
Model	K30
Temperature control range	RT. +5 °C-100 °C
Timer range	1 min~99 h 59 min
Temp. control accuracy	±0.5 °C
Heating time (25 °C to 100 °C)	≤15 min (@20 °C~30 °C)
Certificate	CE
Dimension (L×W×H) mm	225×160×197 mm
Weight	3 kg

Ordering Information

Code	Product description
AS-01030-00	K30, AC 220 V / AC 120 V, 50 / 60 Hz, 100 W

Suitable Blocks

Code	Type	Description
AS-01031-01	A-30	96×0.2 mL tube
AS-01031-02	B-30	29×0.5 mL+ 32×1.5 mL tube
AS-01031-03	C-30	61×0.5 mL tube
AS-01031-04	D-30	41×1.5 mL tube
AS-01031-05	E-30	41×2.0 mL tube
AS-01031-06	F-30	61×Φ6 mm tube
AS-01031-07	H-30	28×Φ12 mm tube
AS-01031-08	I-30	28×Φ13 mm tube
AS-01031-09	J-30	21×Φ15 mm tube
AS-01031-10	K-30	21×Φ16 mm tube
AS-01031-11	L-30	17×Φ18 mm tube
AS-01031-12	M-30	14×Φ20 mm tube
AS-01031-13	N-30	9×Φ25 mm tube
AS-01031-14	O-30	4×Φ32 mm tube



MiniT

Mini-Dry Bath Incubator



MiniT



MiniT-C



MiniT-100



MiniT-100H

Features

- Small footprint: MiniT series are a personal sized that fits in the palm on your hand; light weight, less than 1 kg.
- DC 12V or DC 24V power input, built-in over temperature protection device, suitable for car power supply.
- Temperature deflection adjusting meets with different demands.
- Interchangeable aluminum alloy sample blocks provide versatility and allow easy cleaning and disinfecting.



Suitable Blocks



A-MiniT



B-MiniT



C-MiniT



D-MiniT



E-MiniT



F-MiniT



G-MiniT

Specification

Model	MiniT	MiniT-C	MiniT-100	MiniT-100H
Temperature control range	RT. +5 °C~80 °C	0 °C~100 °C	RT. +5 °C~100 °C	RT. +5 °C~100 °C
Timer range	1-999 min or 1-999 sec	1-999 min or 1-999 sec	1-999 min or 1-999 sec	1-999 min or 1-999 sec
Temp. control accuracy	±0.5 °C	±0.5 °C	±0.5 °C	±0.5 °C
Display accuracy	±0.1 °C	±0.1 °C	±0.1 °C	±0.1 °C
Heating time (25 °C to max.)	≤12 min	≤20 min	≤15 min	≤15 min
Cooling time (20 °C to 0 °C)	/	≤25 min	/	/
Temp. stability	±0.3 °C	±0.3 °C	±0.3 °C	±0.3 °C
Thermo lid	/	/	/	Thermo lid
Thermo lid temp. control range	/	/	/	RT. +5 °C~100 °C
Dimension (L×W×H) mm	150×110×100	162×110×140	152×120×112	152×120×112
Weight	0.5 kg	1.0 kg	0.8 kg	0.9 kg
Power supply	DC 12 V	DC 12 V	DC 24 V	DC 24 V

Ordering Information

Code	Product description
AS-01130-00	MiniT mini dry bath, DC 12 V, 40 W
AS-01170-00	MiniT-C mini dry bath, DC 12 V, 60 W
AS-01150-00	MiniT-100 mini dry bath, DC 24 V, 40 W
AS-01160-00	MiniT-100H mini dry bath, DC 24 V, 50 W

Suitable Blocks

Code	Type	Description
AS-01031-01	A-MiniT	40×0.2 mL tube
AS-01031-02	B-MiniT	24×0.5 mL tube
AS-01031-03	C-MiniT	15×1.5 mL tube
AS-01031-04	D-MiniT	15×2.0 mL tube
AS-01031-05	E-MiniT	8×12.5×12.5 mL cuvette block
AS-01031-06	F-MiniT	4×15 mL tube
AS-01031-07	G-MiniT	2×50 mL tube
AS-01031-08	Can be customized	

Note: MiniT-100H can just use A-MiniT block and can not exchange!

MiniT-H2C / MiniT-H3

Mini-Dry Bath Incubator



Features

- Working area dimension: 3 individual controllers.
- LCD display. It is easy to set and use.
- Simultaneously display the set and actual time, temperature, auto-stop and sound-alert after program completed.
- Temperature deflection adjusting meets different demands.
- MiniT-H3 has a heating function only and its temperature range from RT. +5 °C~100 °C.
- MiniT-H2C has cooling / heating functions and its temperature range from 0 °C~99.9 °C.

Suitable Blocks



A-MiniT



B-MiniT



C-MiniT



D-MiniT



E-MiniT



F-MiniT



G-MiniT

Specification

Model	MiniT-H3			MiniT-H2C		
	Block-A	Block-B	Block-C	Block-A	Block-B	Block-C
Working area	Block-A	Block-B	Block-C	Block-A	Block-B	Block-C
Temp. control range	RT. +5 °C to 99.9 °C	RT. +5 °C to 99.9 °C	RT. +5 °C to 99.9 °C	0 °C to 99.9 °C	RT. 5 °C to 99.9 °C	RT. 5 °C to 99.9 °C
Heating time (25 °C to 99.9 °C)	≤20 min	≤20 min	≤20 min	≤20 min	≤20 min	≤20 min
Cooling time (20 °C to 0 °C)	/	/	/	≤25 min *	/	/
Temp. control accuracy	≤0.5 °C					
Temp. stability @37 °C	0.2 °C					
Display accuracy	0.1 °C					
Timer range	1~999 h or 1~999 min or 1~999 sec					
Block quantity	3					
Power supply	DC 12 V, 120 W					
Dimension (mm)	360×180×150 mm					
Weight	3 kg					

* Tested in AT. <25 °C

Ordering Information

Code	Product description
AS-01220-00	Mini-H3 3-in-1 mini dry bath
AS-01230-00	Mini-H2C 3-in-1 mini dry bath

Suitable Blocks

Code	Type	Description
AS-01031-01	A-MiniT	40×0.2 mL tube
AS-01031-02	B-MiniT	24×0.5 mL tube
AS-01031-03	C-MiniT	15×1.5 mL tube
AS-01031-04	D-MiniT	15×2.0 mL tube
AS-01031-05	E-MiniT	8×12.5×12.5 mL cuvette block
AS-01031-06	F-MiniT	4×15 mL tube
AS-01031-07	G-MiniT	2×50 mL tube
AS-01031-08	Can be customized	

IB-10HL / IB-20HL

Dry Bath Incubator



IB-10HL



IB-20HL
The PCR reaction program
can be edited and run

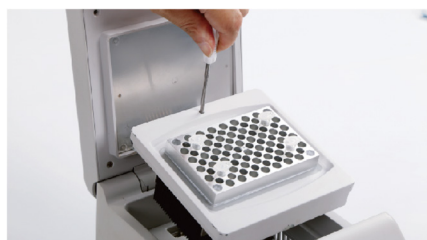
Features

- Adopt innovative replaceable aluminum alloy block design; block automatic identification function.
- Stepless adjustable thermo lid design, suitable for 0.2 mL, 0.5 mL, 1.5 mL, 2.0 mL centrifuge tubes, effectively preventing tube cover explosion and evaporation.
- Customize the thermo lid switch status.

IB-20HL unique feature: the PCR reaction program can be edited and run.

- Can independently set / display block temperature, constant temperature time, thermo lid temperature.
- 4 programs can be preset, 9 steps can run in a cycle, the number of cycles is up to 99.

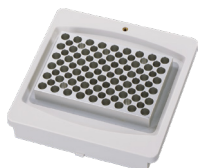
Easy to Exchange Blocks



Suitable Blocks



IB10-A



IB10-B



IB10-C



IB10-D



IB10-E



Block for IB-20HL

Specification

Model	IB-10HL	IB-20HL
Temperature control range	RT. +5 °C~105 °C	-5 °C~105 °C (AT. ≤20 °C) 0 °C~105 °C (AT. ≤25 °C) 4 °C~105 °C (AT. ≤30 °C)
Lid temperature range	RT. +5 °C~110 °C	RT. +5 °C~110 °C
Timer range	0~99 h 59 min / 0~99 min 59 sec	0~99 h 59 min / 0~99 min 59 sec
Temp. accuracy for blocks	±0.5 °C	±0.5 °C
Temp. accuracy for lid	±1 °C	±1 °C
Uniformity within the block	±0.5 °C	±0.5 °C
Display accuracy	0.1 °C	0.1 °C
Heating time (RT. 25 °C)	≤15 min (25 °C-100 °C, @20 °C-30 °C)	Heating speed: (37 °C-100 °C) ≥6 °C/min
Cooling time	/	Cooling speed: (100 °C-37 °C) ≥6 °C/min
Dimension (mm)	267×166×167 mm	313×168×196 mm
Weight	2.3 kg	3.0 kg

Ordering Information

Code	Product description
AS-01270-00	IB-10HL, AC 100~240 V, 50 / 60 Hz, 120 W
AS-01280-00	IB-20HL, AC 100~240 V, 50 / 60 Hz, 120 W

Suitable Blocks

Code	Series	Block	Description
AS-01271-01	IB-10HL	IB10-A	96×0.2 mL PCR tube
AS-01271-02		IB10-B	54×0.5 mL tube
AS-01271-03		IB10-C	35×1.5 mL tube
AS-01271-04		IB10-D	35×2.0 mL tube
AS-01271-05		IB10-E	15×0.5 mL+20×1.5 mL tube
AS-01181-28		T4	Block extraction tool
AS-01281-01	IB-20HL	IB20-A	96×0.2 mL PCR tube
AS-01281-02		IB20-B	54×0.5 mL tube
AS-01281-03		IB20-C	35×1.5 mL tube
AS-01281-04		IB20-D	35×2.0 mL tube
AS-01281-05		IB20-E	15×0.5 mL+20×1.5 mL tube
AS-01181-28		T4	Block extraction tool

OS-100 / OS-200

Orbital Shaker

OS-100 and OS-200 orbital shaker are powerful variable speed shaker which provides efficient orbital motion. Speed and time are under microprocessor control. OS-200 / OS-100 shaker can be applicable in different labs: microbiology, chemistry, immunology, biochemistry and molecular biology.



Features

- Timer function, set the working time within 1 min-100 h.
- Normal operation at 4~45 °C, safe and convenient.
- A variety of pallets are available for different mixing operation.

OS-100 / OS-200 Platforms



Specification

Model	OS-100	OS-200
Shaking Speed	50-300 rpm	50-250 rpm
Orbit	10 mm	20 mm
Max. capacity	3.0 kg	2.5 kg
Timer range	1 min~99 h 59 min	
Load capacity	See below table	
Motor	DC brushless	
Operating ambient	4~45 °C	
Dimension (mm)	280×270×110 mm	

Ordering Information

Code	Product description
AS-04030-00	OS-100, AC 100-240 V, 50 / 60 Hz, 2 A
AS-04020-00	OS-200, AC 100-240 V, 50 / 60 Hz, 2 A

Suitable Blocks

AS-04021-01	PP-1, flat platform with non-slip rubber mat
AS-04021-02	PP12-100, platform with clamps for flasks, 100-150 mL
AS-04021-03	PP06-250, platform with clamps for flasks, 250-300 mL
AS-04021-04	UP-1, universal platform with adjustable bars for different types of flasks, bottles
AS-04021-05	MP-1, platform with springs

MD200

Sample Concentration

MD200-1 / MD200-2 / MD200-1A sample concentration consists of a base and stand assembly, sample holder and gas distribution system.



MD200-1



MD200-1A



MD200-2

Features

- Blowing a large number of samples at one time.
- Easy operation, safe and reliable to use, amount of airflow can be adjusted.
- High precision and wide range of temperature control.

Specification

Model	MD200-1	MD200-1A	MD200-2
Temperature control range	RT. +5 °C~150 °C	RT. +5 °C~150 °C	RT. +5 °C~150 °C
Temp. control accuracy @40~100 °C	±0.5 °C	±0.5 °C	±0.5 °C
Temp. control accuracy @100-150 °C	±1 °C	±1 °C	±1 °C
Temp. accuracy for blocks @40 °C	±0.3 °C	±0.3 °C	±0.3 °C
Display accuracy	0.1 °C	0.1 °C	0.1 °C
Heating time (from 40-150 °C)	≤30 min	≤30 min	≤30 min
Standard blocks	1	1	2
Needle length	150 mm	80 mm	150 mm
Nitrogen consumption	0~15 L/min	0~15 L/min	0~15 L/min
Dimension (mm)	280×240×500 mm	280×240×500 mm	280×240×500 mm

Ordering Information

Code	Product description
AS-06050-00	MD200-1, AC 220 V / AC 120 V, 50 / 60 Hz, 200 W
AS-06060-00	MD200-1A, AC 220 V / AC 120 V, 50 / 60 Hz, 200 W
AS-06070-00	MD200-2, AC 220 V / AC 120 V, 50 / 60 Hz, 400 W
AS-06051-01	150 mm needles (just for MD200-1 and MD200-2)
AS-06061-01	80 mm needles (just for MD200-1A)
AS-06091-11	150 mm needles (just for KD200)
AS-06051-02	Flow control valve (optional)

Accessory

Code	Type	Description	Dimension (mm)
AS-01081-01	BK01	49×Φ6 mm	96×96×49 mm
AS-01081-02	BK02	49×Φ7 mm	96×96×49 mm
AS-01081-03	BK03	25×Φ10 mm	96×96×49 mm
AS-01081-04	BK04	25×Φ12 mm	96×96×49 mm
AS-01081-05	BK05	25×Φ13 mm	96×96×49 mm
AS-01081-06	BK06	12×Φ15 mm	96×96×49 mm
AS-01081-07	BK07	16×Φ15 mm	96×96×49 mm
AS-01081-08	BK08	12×Φ16 mm	96×96×49 mm
AS-01081-09	BK09	16×Φ16 mm	96×96×49 mm
AS-01081-10	BK10	12×Φ19 mm	96×96×49 mm
AS-01081-11	BK11	16×Φ19 mm	96×96×49 mm
AS-01081-12	BK12	9×Φ20 mm	96×96×49 mm
AS-01081-13	BK13	9×Φ26 mm	96×96×49 mm
AS-01081-14	BK14	4×Φ28 mm	96×96×49 mm
AS-01081-15	BK15	4×Φ40 mm	96×96×49 mm
AS-01081-16	BK16	49×0.5 mL tube	96×96×49 mm
AS-01081-17	BK17	25×1.5 mL tube	96×96×49 mm
AS-01081-18	BK18	25×2.0 mL tube	96×96×49 mm
AS-01091-01	BK19	96×0.2 mL tube	78×114×26 mm
AS-01091-02	BK20	96×0.2 mL microplate	81×123×19 mm

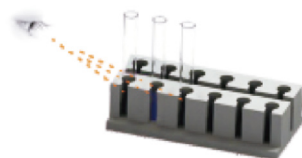
Note: BK19 and BK20 are special for MD200-1A

KD200

Sample Concentration



Flow Control Valve



KD200 Visual Diagram



Features

- Professionally-designed block, tester can be observed at the surface location of concentrated samples.
- Depending on the test-tube size and solvent volume they can increase or decrease the height individually.
- Easy operation; safe and reliable to use.

Specification

Temperature control range	RT. +5 °C~150 °C
Temperature stability	≤±1 °C (RT. +5 °C~100 °C) / ≤±1.5 °C (100 °C~150 °C)
Heating time (from 40 to 150 °C)	≤30 min
Timer range	1 min-99 h 59 min
Maximum input power	400 W
Temperature control precision	0.1 °C
Needle length	150 mm
Capacity	12 pcs
Dimension (mm)	280×240×500 mm

Ordering Information

Code	Product description
AS-06090-00	KD200, AC 220 V / AC 120 V, 50 / 60 Hz, 400 W
AS-06051-01	150 mm needles (just for MD200-1 and MD200-2)
AS-06061-01	80 mm needles (just for MD200-1A)
AS-06091-11	150 mm needles (just for KD200)
AS-06051-02	Flow control valve (optional)

Block

Code	Type	Description
AS-06091-01	BD01	12×Φ10 mm
AS-06091-02	BD02	12×Φ12 mm
AS-06091-03	BD03	12×Φ13 mm
AS-06091-04	BD04	12×Φ15 mm

Code	Type	Description
AS-06091-05	BD05	12×Φ16 mm
AS-06091-06	BD06	12×Φ19 mm
AS-06091-07	BD07	12×Φ20 mm

Block dimension: 192×96×49 mm

HM-3000

Bacti-Cinerator Sterilizer

The bacti-cinerator sterilizer uses infrared heat sterilization and can be used in environments such as biosafety cabinets, ultra-clean workbenches, exhaust fans, and mobile vehicles. No open flames, safer, can completely replace alcohol lamps.



HM-3000A



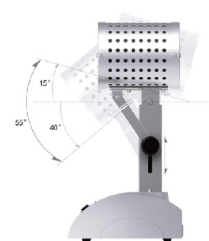
HM-3000C



HM-3000D



HM-3000E

HM-3000D and
HM-3000E
Adjustable Heater

Specification

Model	HM-3000A	HM-3000C	HM-3000D	HM-3000E
Center high-temperature	825 °C±50 °C	825 °C±50 °C	825 °C±50 °C	825 °C±50 °C
Adjustable angle range	/	/	40° down horizontally, 15° up	40° down horizontally, 15° up
Max-sterilizer goods diameter	Φ14 mm	Φ35 mm	Φ14 mm	Φ35 mm
Length of sterilizer	150 mm	100 mm	150 mm	100 mm
Dimension (D×W×H) mm	185×98×185 mm	162×98×225 mm	159×100×260 mm	153×100×280 mm
Power	170 W	320 W	170 W	320 W
Weight	1.3 kg	1.3 kg	1.5 kg	1.6 kg

Ordering Information

Code	Product description
AS-07020-00	HM-3000A, AC 220 V / AC120 V, 50 / 60 Hz, 1 A
AS-07050-00	HM-3000C, AC 220 V, 50 / 60 Hz, 1 A
AS-07090-00	HM-3000D, AC 220 V / AC120 V, 50 / 60 Hz, 1 A
AS-07100-00	HM-3000E, AC 220 V / AC120 V, 50 / 60 Hz, 1 A
AS-07021-01	220 V heater for HM-3000A
AS-07051-01	220 V heater for HM-3000C
AS-07021-03	Holder for HM-3000A
AS-07051-03	Holder for HM-3000C

GBS-5000

Glass Bead Sterilizer

Glass bead sterilizers are a quick, easy and accurate alternative to traditional methods of sterilization, and compact enough to be placed on any laminar air flow work benches or any other worksite tables in a clean room atmosphere.



GBS-5000A



GBS-5000B

Specification

Model	GBS-5000A	GBS-5000B
Crucible size	Φ40 mm×80 mm	Φ40 mm×140 mm
Weight of glass bead	150 g	300 g
Temperature range	100 °C~300 °C	100 °C~300 °C
Temp. control accuracy	±5 °C	±5 °C
Heating time (40 °C~300 °C)	≤25 min	≤25 min
Power	120 W	250 W
Weight	2 kg	2.5 kg
Dimension (D×W×H) mm	130×145×155 mm	130×145×215 mm

Ordering Information

Code	Product description
AS-07070-00	GBS-5000A, AC 200-AC 240 V / AC 100-AC 120 V, 50 / 60 Hz
AS-07080-00	GBS-5000B, AC 200-AC 240 V / AC 100-AC 120 V, 50 / 60 Hz
AS-07071-01	150 g glass beads (Φ3 mm)
AS-07071-02	300 g glass beads (Φ3 mm)

VII

Reagent & Consumable

cfDNA Extraction Reagent Kit

Allsheng nucleic acid extraction or purification reagents are designed for fast and stable extraction of cfDNA from 500-5000 μ L plasma or serum samples. Reagents are based on the magnetic bead method, which can be used manually or with Allsheng and other automated platforms.



Features

Multiple Systems Available

Different reaction systems, suitable for 0.5 / 1 / 2 / 3 / 4 / 5 mL sample extraction.

Automated Extraction

Match Allsheng automatic nucleic acid extraction instrument to realize automatic extraction.

Suitable for a Variety of Sample Sources

For fresh and frozen samples preserved in EDTA, citrate or STRECK non-invasive tubes.

Stable Extraction

Manual and automated extraction results are stable and reliable.

Magnetic Bead Extraction

Simple operation without multiple centrifugation.

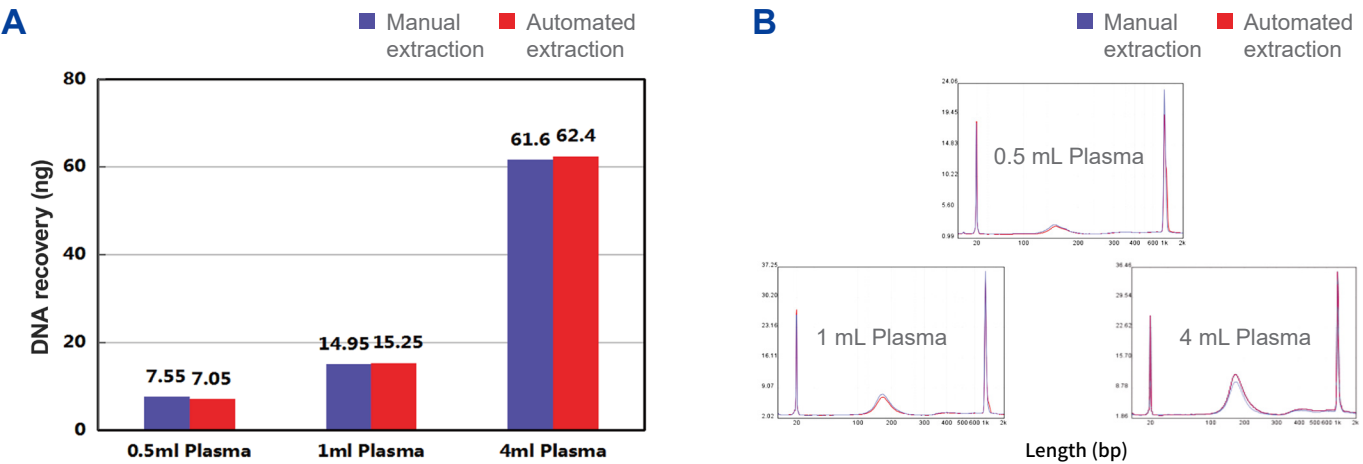
30 μ L Elution

The minimum elution volume is 30 μ L to ensure nucleic acid concentration.

Main Components and Specifications

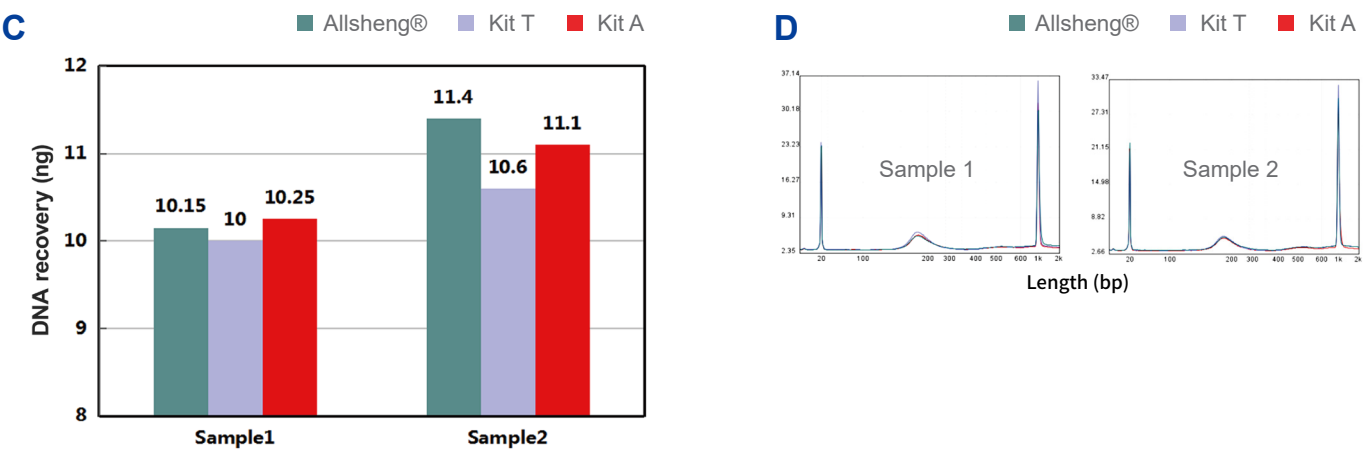
Specification Component	1 mL samples			2 mL samples			4 mL samples		
	24 persons	50 persons	100 persons	24 persons	50 persons	100 persons	24 persons	50 persons	100 persons
Magnetic beads	0.72 mL	1.5 mL	3.0 mL	1.44 mL	3.0 mL	6.0 mL	3.0 mL	6.0 mL	12 mL
Proteinase k	2.4 mL	5.0 mL	10.0 mL	3.0 mL	6.25 mL	12.5 mL	4.2 mL	8.75 mL	17.5 mL
Lysis buffer	1.2 mL	2.5 mL	5.0 mL	2.4 mL	5.0 mL	10.0 mL	4.8 mL	10 mL	20 mL
cfDNA binding buffer	30 mL	62.5 mL	125 mL	60 mL	125 mL	250 mL	120 mL	250 mL	500 mL
cfDNA washing buffer 1	48 mL	100 mL	200 mL	48 mL	100 mL	200 mL	48 mL	100 mL	200 mL
cfDNA washing buffer 2	48 mL	100 mL	200 mL	48 mL	100 mL	200 mL	48 mL	100 mL	200 mL
cfDNA eluent	2.4 mL	5.0 mL	10 mL	2.4 mL	5.0 mL	10 mL	2.4 mL	5.0 mL	10 mL

Comparison of the results of manual extraction and automated extraction of plasma from tumor patients with Allsheng nucleic acid extraction or purification reagents



0.5 mL, 1 mL, and 4 mL of tumor patient plasma were taken for cfDNA extraction, and compared with the same samples and the results of manual extraction. The results showed that there was no significant difference in the yields of the two extraction methods under the three volumes (A), and the fragment size distributions were roughly the same (B), indicating that the reagent automation was well matched and met the requirements of normal sample extraction.

Comparison of plasma DNA extraction effect from tumor patients between Allsheng nucleic acid extraction or purification reagents and other brand reagents on the market



Allsheng®, imported kit T and domestic kit A were used to extract DNA from two different samples respectively. The recovery results showed that the extraction effect of Allsheng® and kit A was slightly better than that of kit T (C), and there were no differences in the extracted fragments (D).

Ordering Information

Code	Description	Standard
RS-HSCF0101	Nucleic acid extraction or purification reagents (1 mL)	10 T / 24 T / 50 T / 100 T
RS-HSCF0102	Nucleic acid extraction or purification reagents (2 mL)	24 T / 50 T
RS-HSCF0104	Nucleic acid extraction or purification reagents (4 mL)	24 T / 50 T

Fluorescence Kit

By using Allsheng dsDNA HS (high-sensitivity), dsDNA BR (broad range) and ssDNA (single-strand) assay kit, precise DNA quantitation can be achieved. These DNA quantitation kits can quickly and selectively detect low concentration and high concentration DNA samples and tolerance pollutants, such as salt, solvents, or detergents.



Allsheng® High Sensitivity dsDNA Quantitation Kit

Analysis range: 0.2-100 ng

Allsheng® high sensitivity dsDNA quantitation kit is suitable for accurate quantitative analysis of low concentration double stranded DNA. The fluorescent dye in this kit can specifically bind double stranded DNA. The fluorescence quantum yield is high, the molar extinction coefficient is large, and the fluorescence value after connecting double stranded DNA is at least 1000 times higher, with good sensitivity and specificity. This kit is used together with our company's Fluo-100, Fluo-200 or Fluo-800 fluorometer, which has the advantages of simplicity, rapidity, high degree of automation, accurate quantification, etc. It can be applied to the detection of exogenous DNA residues in recombinant products, the detection of drug residues and the detection of cfDNA content.

Allsheng® ssDNA Quantitation Kit

Analysis range: 1-200 ng

Fluo-100, Fluo-200 or Fluo-800 fluorometer matches with Allsheng® ssDNA quantitation kit. The sensitivity and accuracy are significantly higher than those of UV absorbance detection, which is suitable for accurate quantitative analysis of low concentration single-strand DNA. Fluorescent dyes in the kit can specifically bind single-strand DNA. It can be used to detect the concentration of synthetic primers and the residues of exogenous single-strand DNA in recombinant products.

Allsheng® Broad Range dsDNA Quantitation Kit

Analysis range: 10-1000 ng

The sensitivity and accuracy of Allsheng® broad range dsDNA quantitation kit are significantly higher than those of UV absorbance detection, which is suitable for precise quantitative analysis of medium and high concentration dual-strand DNA. The fluorescent dye in this kit can specifically combine dual-strand DNA and can be used together with Allsheng Fluo-100, Fluo-200 or Fluo-800 fluorometers. It can be applied to the quantitative analysis of genomic DNA, the detection of exogenous DNA residues in recombinant products, the detection of drug residue DNA, etc.

Ordering Information

Code	Product description
RS-FL 0101-S	Allsheng® high sensitivity dsDNA quantitation kit (100 assays)
RS-FL 0101-M	Allsheng® high sensitivity dsDNA quantitation kit (200 assays)
RS-FL 0101-L	Allsheng® high sensitivity dsDNA quantitation kit (1000 assays)
RS-FL 0102-S	Allsheng® broad range dsDNA quantitation kit (100 assays)
RS-FL 0102-M	Allsheng® broad range dsDNA quantitation kit (200 assays)
RS-FL 0102-L	Allsheng® broad range dsDNA quantitation kit (1000 assays)
RS-FL 0103-S	Allsheng® high sensitivity ssDNA quantitation kit (100 assays)
RS-FL 0103-M	Allsheng® high sensitivity ssDNA quantitation kit (200 assays)
RS-FL 0103-L	Allsheng® high sensitivity ssDNA quantitation kit (1000 assays)

Luminescence Kit

Based on the construction, transfection and expression of the luciferase reporter gene vector, Allsheng luminescent series kits use luciferase to catalyze the transformation of substrate and emit photons. Finally, the detection system is used to obtain the detection data. The reagent adopts an optimized reaction system, which is easy to prepare, convenient operation and high accuracy.



ATP Bioluminescence Assay Kit

Firefly luciferase is used to catalyze the conversion of substrate luciferin, and efficiently use the energy of ATP to emit photons. The bioluminescence detection of ATP is based on the principle that the luminous signal is proportional to the amount of ATP. The product can be used for rapid and quantitative determination of ATP (adenosine 5'-triphosphate) level in liquid samples or cells or tissues. Lysis buffer in the product can effectively lyse bacteria, cells and microbial samples, fully release ATP, and is suitable for ATP detection from multiple sample sources. Luciferase / luciferin substrate adopts an optimized enzyme reaction system, and the fluorescence generated is stable within one minute. The detection sensitivity of this product reaches 10^{-16} mol, and the detection range is 10^{-11} mol to 10^{-16} mol, which can be used for the detection of micro ATP.

Single Luciferase Reporter Gene Assay Kit

The common method of eukaryotic gene expression regulation research is to detect reporter gene, and bioluminescence is the most commonly used and effective means of reporter gene detection. Luciferase can catalyze the conversion of the substrate luciferin and emit photons. This product provides a rapid, sensitive and stable detection method for the expression of firefly luciferase reporter gene in mammalian cells. It can detect the lowest 10^{-20} mol of luciferase, showing a good linear relationship in the range of 10^{-14} mol to 10^{-20} mol of enzyme concentration. Luciferase assay reagent adopts an optimized enzyme reaction system, which produces fluorescence with a half-life of more than 15 minutes. The reagent is easy to prepare and operate, and is suitable for high-throughput detection of firefly luciferase activity.

Double Luciferase Reporter Gene Assay Kit

Bioluminescent is the most effective method to detect reporter gene. Luciferase can catalyze the conversion of the substrate luciferin and emit photons. The luminescence reaction catalyzed by firefly luciferase and Renilla luciferase has similar optical characteristics and good linear range of concentration (7-8 orders of magnitude). The detection sensitivity of the enzyme is 10^{-14} mol~ 10^{-20} mol, but the chemical reaction substrate and optimal reaction conditions catalyzed by the two are completely different. Using this feature, the combination of these two luciferases can form a very effective double luciferase reporter gene system, in which Renilla luciferase is usually used as an internal reference.

Gaussia Luciferase Assay Kit

Gaussia luciferase (Gluc) is a new type of luciferase, which is a marine copepod isolated from Hawaiian waters. Gaussia luciferase is a secretory luciferase. After the report plasmid is transfected into mammalian cells, it is expressed and can be secreted outside the cells. The supernatant can be directly taken for detection without cell lysis. The operation is more convenient, and it is more suitable for detection of report genes at different time points and high-throughput screening. The luminous intensity of Gaussia luciferase is higher than that of Firefly luciferase and Renilla luciferase, and the detection sensitivity is better.

Ordering Information

Code	Product description
RS-CL 0101	ATP bioluminescence assay kit
RS-CL 0102	Single luciferase reporter gene assay kit
RS-CL 0103	Double luciferase reporter gene assay kit
RS-CL 0104	Gaussia Luciferase assay kit

FFPE Kit

FFPE Tissue Sample DNA Extraction Kit

AllSheng® FFPE tissue sample DNA extraction kit can quickly and reliably separate nucleic acids from FFPE. This kit uses efficient tissue lysis buffer and non-toxic dewaxing agent for one-step dewaxing lysis. Based on the principle of silicon hydroxyl magnetic beads and nucleic acid separation and purification methods, DNA is quickly and efficiently extracted from paraffin-embedded tissue sections, paraffin blocks, or formalin fixed tissue samples.



Features

01 Non-Toxic Dewaxing Agent

Non-toxic dewaxing design, no need to use in chemical fume hoods.

02 Automated Extraction

With Leap-Pure series, no need for manual operations such as dewaxing and centrifugation.

03 Efficient Extraction

Consistent with similar products at home and abroad in terms of concentration, integrity and other aspects.

04 Stable Extraction

Manual and automated extraction results are stable and reliable.

Operation Process

1

Sample+dewaxing agent+lysis buffer+Proteinase k (mix well, incubate at 56 °C for 1 h)

2

Decrosslinking: Incubate at 90 °C for 1 h

3

Transfer the lower aqueous phase to a tube, cool down and add RNaseA, mix and stand for 5 min

4

Add binding solution+magnetic beads, mix and incubate for 10 min, stand for magnetic absorption

5

Add wash buffer 1, mix for 1 min, stand for magnetic absorption, repeat the step once

6

Add wash buffer 2, mix for 1 min, stand for magnetic absorption, repeat the step once

7

Dry 2-5 min

8

Add the eluent 60 °C, shake and mix for 5 min, stand for magnetic absorption

The manual extraction requires adding reagents in sequence according to the steps. With the automatic extraction method, you only need to add the sample directly into the designated wells, and the rest of the reagents are added to the other wells in advance, which is relatively more convenient.

Comparison of Extraction Efficiency Between Allsheng Kits and 3 Referenced Kits at Home and Abroad

The extraction efficiency of Allsheng kits and 3 referenced kits at home and abroad varies for different samples. In the extraction of sample C, the extraction efficiency of Allsheng kits is significantly higher than that of the three referenced kits (Figure 1), and the fragment distribution and integrity of the 3 samples are consistent with the referenced products (Figure 2). The same amount of extracted products from the 4 kinds of kits is used to the library preparation, and there is no significant difference in the library production after Allsheng kits are built compared to the library production of the other 3 kinds of kits (Figure 3).

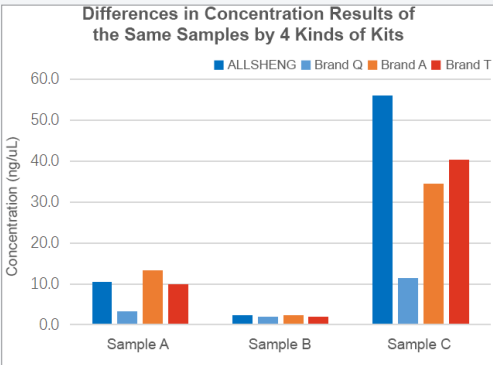


Figure 1 Concentration of Different Human Tissue FFPE Extracted by 4 Kinds of Kits

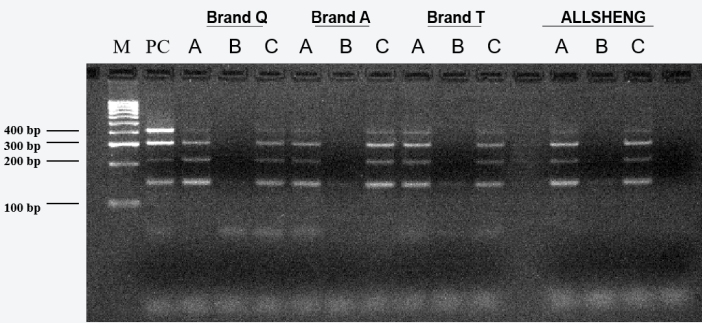
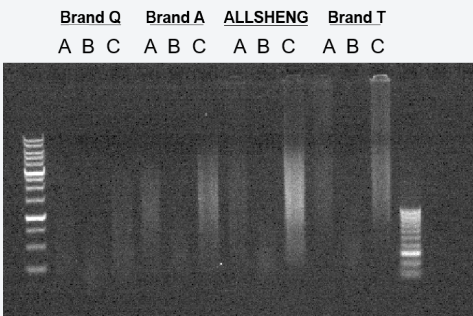
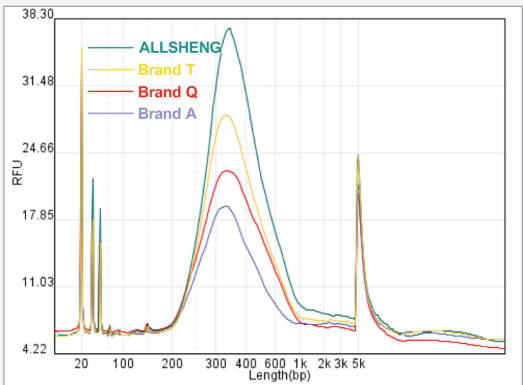


Figure 2 Agarose Gel Electrophoresis Diagram and Integrity Analysis Diagram of the Extracted Products of Different Human Tissue FFPE Extracted by 4 Kinds of Kits



Group	Qubit Concentration	Library Production
Brand T	17.8 ng/μl	445 ng
Brand Q	13 ng/μl	325 ng
Brand A	17.1 ng/μl	427.5 ng
ALLSHENG	17.5 ng/μl	437.5 ng

Figure 3 Results of Library Preparation Experiments of the Extracted Products by 4 Kinds of Kits

Comparison of Automated Extraction Efficiency of Allsheng Kits

Comparison between fully automated extraction on Leap-Pure S24 and manual extraction of FFPE. The results show that the concentration of Leap-Pure S24 extracted products can reach more than 90% of the manual method (Figure 4), the agarose gel electrophoresis effect shows that the two methods of extracted product fragments are distributed uniformly (Figure 5), and the nucleic acid quality for downstream applications (such as using Agilent Bioanalyzer system for DNA analysis, and RT-PCR analysis) is basically consistent (Figure 6, 7). Using Leap-Pure S24 for nucleic acid extraction reduces manual intervention time by more than 90% compared to manual extraction throughout the process.

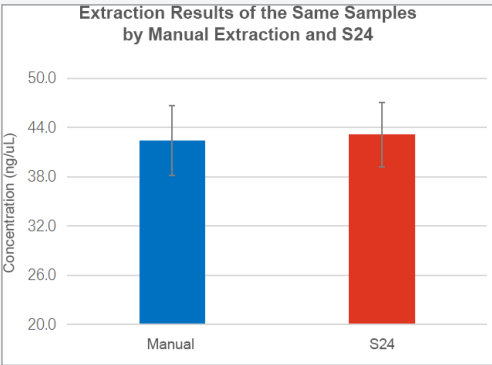


Figure 4 Comparison of Efficiency Between Fully Automated Nucleic Acid Extraction and Manual Extraction

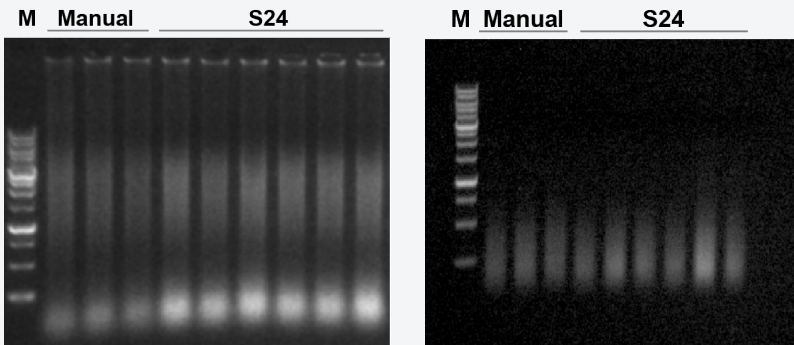
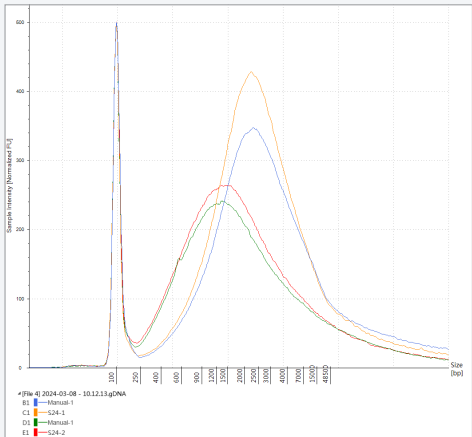


Figure 5 Agarose Gel Electrophoresis Results of Manual Method and S24 Extracted Products



Well	DIN	Conc. [ng/μl]	Sample Description
A1	/	89.1	Ladder
B1	4.5	80.2	Manual-1
C1	4.3	92.5	S24-1
D1	2.8	64.2	Manual-2
E1	2.9	69.5	S24-2

Figure 6 Fragment Analysis Results of Manual Method and S24 Extracted Products on Agilent 4150

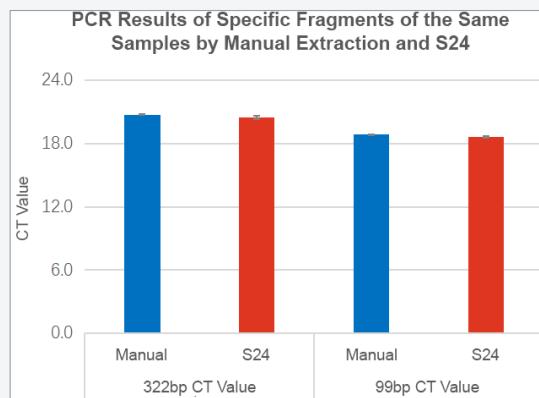


Figure 7 qPCR Results of S24 and Manual Method Extracted Products for Amplicons of Different Sizes

Seal Film

Seal Film Series



AS-F03NL composite aluminum film, AS-F19B heat seal puncturable aluminum film can be suitable for SealBio-1 automated plate heat sealer.

Heat Seal Film

Medical seal film, with the advantages of alcohol resistance, good sealing and temperature resistance, clean and tidy removal without film residue, is a special seal film for 96 deepwell plates.

Code	Product name	Material	Thickness	Width	Length
AS-F03L	Composite aluminum film	Al + PP	0.11 mm	113 mm	150 m
AS-F03NL	Composite aluminum film	Al + PP	0.11 mm	80 mm	300 m

Pressure Sensitive Film

It is a high transmittance pressure-sensitive film used for PCR experiments, consisting of one layer of fluorine release film and one layer of transparent pressure-sensitive film glued together with silicone gel. It can avoid cross-contamination between wells in PCR reactions and is a simple and fast film for sealing microplates.

Code	Product name	Material	Thickness	Width	Length
AS-F16R	High transmittance pressure sensitive film	Composite pressure sensitive film	95 μ m	80 mm	51 m

Adhesive Film

It is a high transmittance adhesive film used for PCR experiments, with good sealing performance and no residue when tearing off. It can avoid cross-contamination between wells in PCR reactions and is a simple and cost-effective film for sealing microplates.

Code	Product name	Material	Thickness	Width	Length
AS-F15R	High transmittance adhesive film	High transparent polypropylene	100 μ m	80 mm	51 m

Puncturable Film

Suitable for various microplates. It is easy to use the tip of manual or automated equipment to puncture the film.

Code	Product name	Material	Thickness	Width	Length
AS-F08C	Adhesive puncturable aluminum film	Aluminum foil	50 μ m	80 mm	100 m
AS-F18R	Pressure sensitive puncturable aluminum film	Aluminum foil	60 μ m	80 mm	51 m
AS-F19C	Heat seal puncturable aluminum film	Al	30 μ m	115 mm	200 m
AS-F19B	Heat seal puncturable aluminum film	Al	30 μ m	80 mm	200 m

VIII

Others

TD2-12 / TD2-24

Gel Card Centrifuge

The gel card centrifuge holds automatic balance control and user can set speed and centrifugation time. It can be suitable for many types gel cards from different manufacturers.



TD2-12



TD2-24

Features

- Digital interface visor control and visualization of centrifuge speed and time remaining for processing.
- Automatic balance control.
- Pre-defined centrifugal parameters for optimum gel cards procession, acceleration, speed, braking and time.
- Programmable audible alarms for end of centrifuge time periods.

Specification

Model	TD2-12	TD2-24
Speed range	800~1800 rpm	500~1500 rpm
RCF. range	54~272×g	33~294×g
Capacity	12 gel cards	24 gel cards
Timer	1~20 min	1~20 min
Noise	≤55 db(A)	≤55 db(A)
Power	AC 100-240 V 85 W	AC 100-240 V 85 W
Dimension (L×W×H) mm	440×340×170 mm	530×410×180 mm
Weight	7 kg	11.5 kg

Ordering Information

Code	Product description
AS-10030-00	TD2-12, AC 100~240 V, 50 / 60 Hz, 3 A
AS-10010-00	TD2-24, AC 100~240 V, 50 / 60 Hz, 3 A

K37-24

Gel Card Incubator

K37-24 gel card incubator can be suitable for many types gel cards from different manufacturers.



Features

- 2 independent incubation zones with a capacity for 12 gel cards.
- Incubator for 24 gel cards in racks at 37 °C.
- Digital interface screen for control and visualization of remaining incubation time and real temperature for each zone.

Specification

Temperature control range	37 °C
Temperature uniformity	≤±0.5 °C
Temperature stability	≤±0.2 °C
Temperature accuracy	<0.5 °C
Heating time	25 °C~37 °C ≤5 min
Capacity	24 gel cards
Power	220 V 3 A 200 W
Dimension (L×W×H) mm	220×380×115 mm

Ordering Information

Code	Product description
AS-10020-00	K37-24, AC 120 / AC 220 V, 50 / 60 Hz, 3 A

MiniT-1 / MiniT-3

Biological Indicator Incubator

MiniT-1 and MiniT-3 biological indicator incubator are designed for temperature incubation of the EO biological indicators. Both of them are compact, tabletop incubator.



MiniT-1



MiniT-3

Features

- LCD display.
- User can set the incubating temperature and time.
- Exact correspondence of the set and actual temperature.
- It is easy to set up and use.
- The Incubator has many wells for placement of the biological indicator vials and the wells can be custom-made.

Specification

Model	MiniT-1	MiniT-3
Temp. control range	RT. +5 °C~80 °C	RT. +5 °C~100 °C
Timer range	1 min-99 h 59 min	1 min-99 h 59 min
Temp. control accuracy	±0.5 °C	±0.5 °C
Display accuracy	±0.1 °C	±0.1 °C
Heating time (25 to 57 °C)	≤6 min	≤6 min
Dimension (D×W×H) mm	110×150×80 mm	120×152×112 mm
Weight	0.5 kg	0.85 kg
Temp. stability @57 °C	±0.35 °C	±0.35 °C

Ordering Information

Code	Product description
AS-09020-00	MiniT-1, AC 100~240 V, 50 / 60 Hz, 0.5 A
AS-09030-00	MiniT-3, AC 100~240 V, 50 / 60 Hz, 0.5 A

Block

Code	Type	Description
AS-09021-01	A-MiniT-1	15×Φ10 mm
AS-09021-02	B-MiniT-1	15×Φ12 mm
AS-09021-03	C-MiniT-1	6×Φ15 mm
AS-09021-04	D-MiniT-1	6×Φ16 mm
AS-09021-05	E-MiniT-1	24×Φ8.8 mm
AS-09021-06	F-MiniT-1	18×Φ9 mm
AS-09021-07	G-MiniT-1	12×Φ12.5 mm
AS-09021-08	H-MiniT-1	6×Φ16.5 mm

Mini-ES2

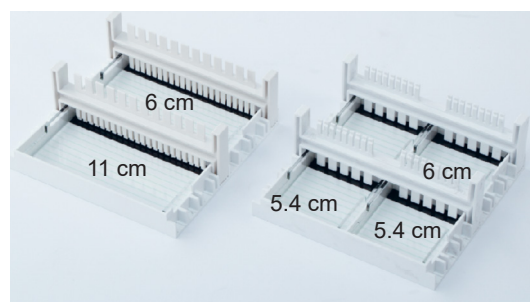
Mini-Electrophoresis System



Features

- Timer function, unattended after startup.
- Safety cover design, and the power is cut off immediately when the cover is open.
- 110×60 mm, 54×60 mm two sizes of gel migration board.

Accessory



Specification

Input power	AC 100~120 V, 50~60 Hz / AC 220~240 V, 50~60 Hz
Output power	DC 35 V / DC 50 V / DC 100 V
Bath dimension (mm)	110×121×43 mm
Volume of bath	230 mL
Construction of bath	PC+ABS with high temperature resistance
Timer range	1 min~99 min
Max. power	40 W
Dimension (W×D×H) mm	190×130×60 mm
Tooth wide (Width×Thickness×No.)	3 mm×1 mm×22 / 5.6 mm×1 mm×12 / 3 mm×1 mm×18 / 5.6 mm×1 mm×10
Gel dimension (W×D) mm	126×126 mm-1 pcs
Gel migration board (W×D) mm	110×60 mm-2 pcs / 54×60 mm-4 pcs

Ordering Information

Code	Product description
AS-14020-00	Mini-ES2, AC 200~240 V, 50~60 Hz



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