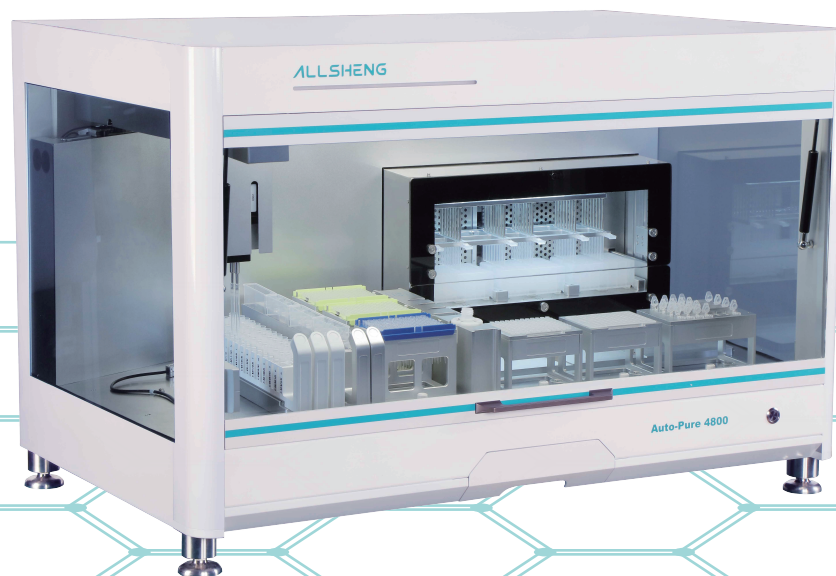


ALLSHENG

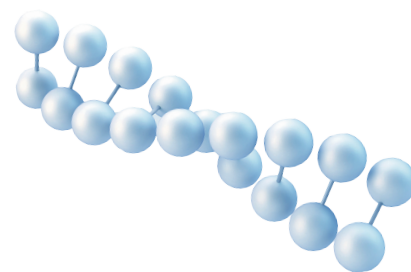
Auto-Pure 4800

Automatic Nucleic Acid Extraction System



Automatic Nucleic Acid Extraction System

Auto-Pure 4800 automatic nucleic acid extraction system is a 48-throughput automatic nucleic acid extraction instrument, based on the magnetic bead method to extract nucleic acids. During the purification process, the steps of pipetting, lysis, washing, elution, and PCR system set-up can be done automatically in the workstation. One-stop operation, without manual intervention, can extract 48 x 1 mL samples at the same time, which is more efficient and convenient than manual and semi-automatic extraction. At the same time, standardized and automated operation steps avoid human error, the experimental results are more reliable and repeatable. 3 pcs UV lamps sterilization and negative pressure filtration system effectively prevent cross-contamination. As an efficient smart workstation, Auto-Pure 4800 can bring you a better product experience.



Fully Automated, Magnetic Bead-based Nucleic Acid Purification

1 Samples Area

The 48 test tube rack can hold different consumables such as sample collection tubes, 1.5 mL and 2.0 mL centrifuge tube, cryopreservation tubes and sample cups. And it is equipped with a barcode scanner. Multiple sample barcodes are scanned one by one during sample rack loading.

2 Reagents Area

Two areas: nucleic acid extraction reagent and PCR reagent
The extraction reagent area: (can be customized)
4 pieces 100 mL general reagent positions
5 pieces 5 mL and 5 pieces 1.5 / 2 mL centrifuge tube positions

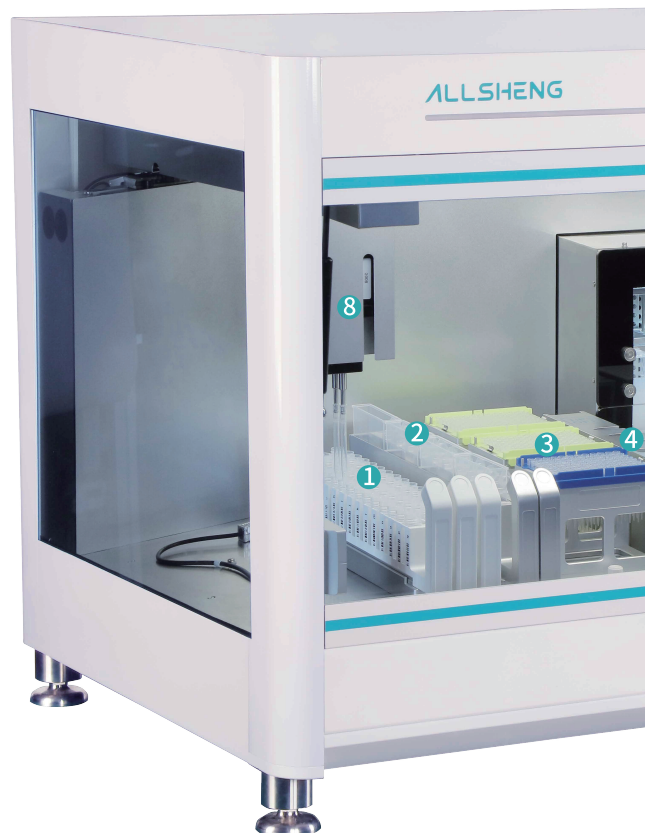
The PCR reagent area: (can be customized)
28 pieces 1.5 / 2 mL centrifuge tubes
The reagent refrigeration function is optional

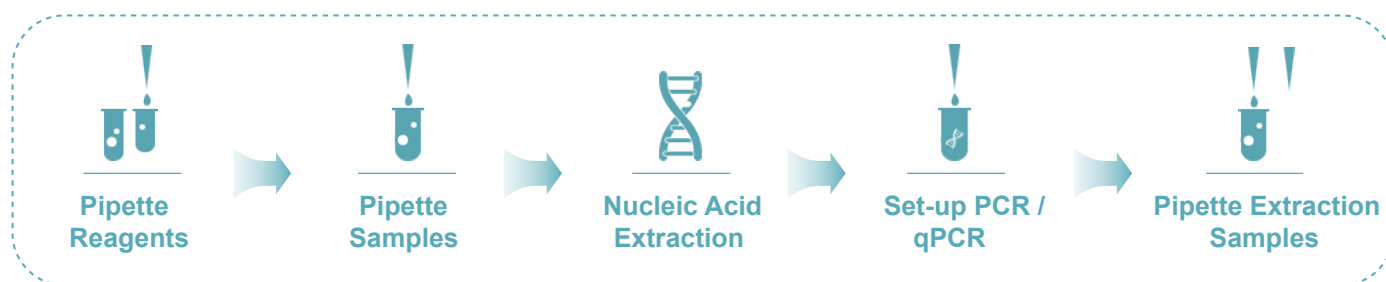
3 Tips Area

3 positions for disposable tip racks. It consists of 2 x 96-1000 μ L and 1 x 96-200 μ L tip racks, using Allsheng tips or other brands compatible tips with this instrument.

4 Waste Area

Used tips will be disposed into the waste container; pipettor drips excessive liquid into it. The waste container can intelligently calculate whether the tips are full, and it is automatically reminded the user to clean up in time when the tips are full. Besides, the UV light enables decontamination of the container.





5 Vortex Magnetic-beads

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

6 Nucleic Acid Extraction Area

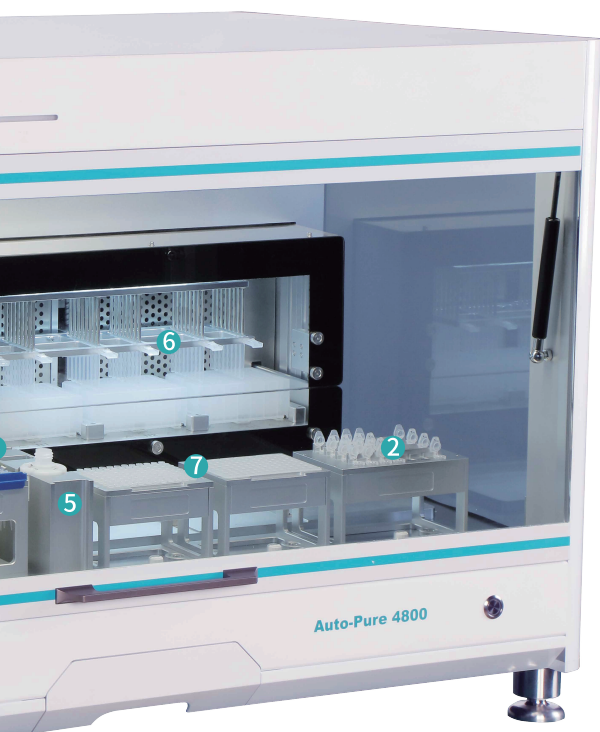
3 positions for 96 deep-well plates that can extract 48 samples at the same time. Built-in heating incubator temp. range up to 120 °C, which can process the sample lysis and nucleic acid elution.

7 PCR / qPCR Set-up Area

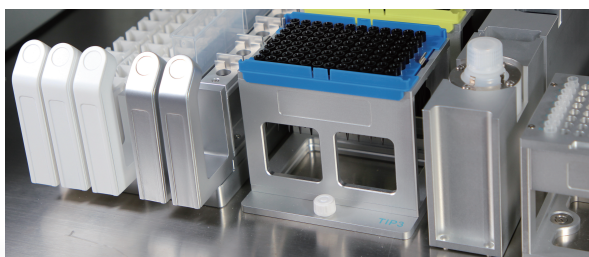
2 x 96 PCR plates or 24 x 8 strip PCR tubes.

8 Pipetting Arm

Three channel pipetting arms, two 1000 μ L pipettors and one 200 μ L pipettor. Air displacement pipettor and pressure detect the liquid level and ensure reliable handling.

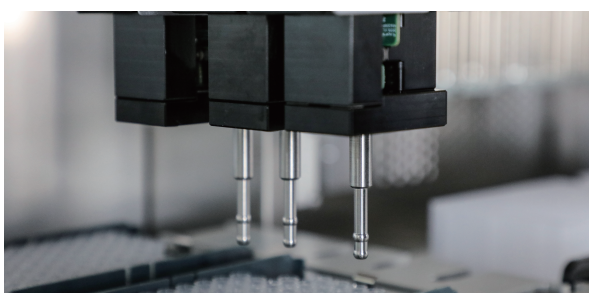


Features



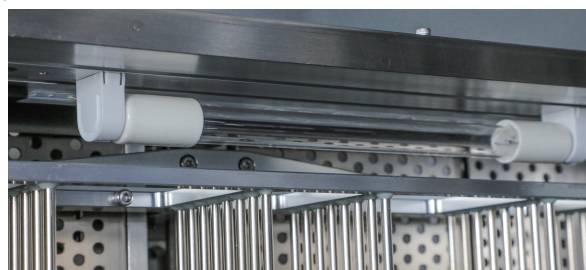
Fast & flexible experiment

- Time for the extraction: 48 samples - 15 ~ 30 min (depending on different reagents)
Time for the pipette sample: 48 samples - 13 min
Time for PCR set-up: 48 samples - 10 min
- Bottled or prefilled reagents can be selected for extraction according to actual needs
- Modular design of the work-table. And it can be customized for the layout of different forms



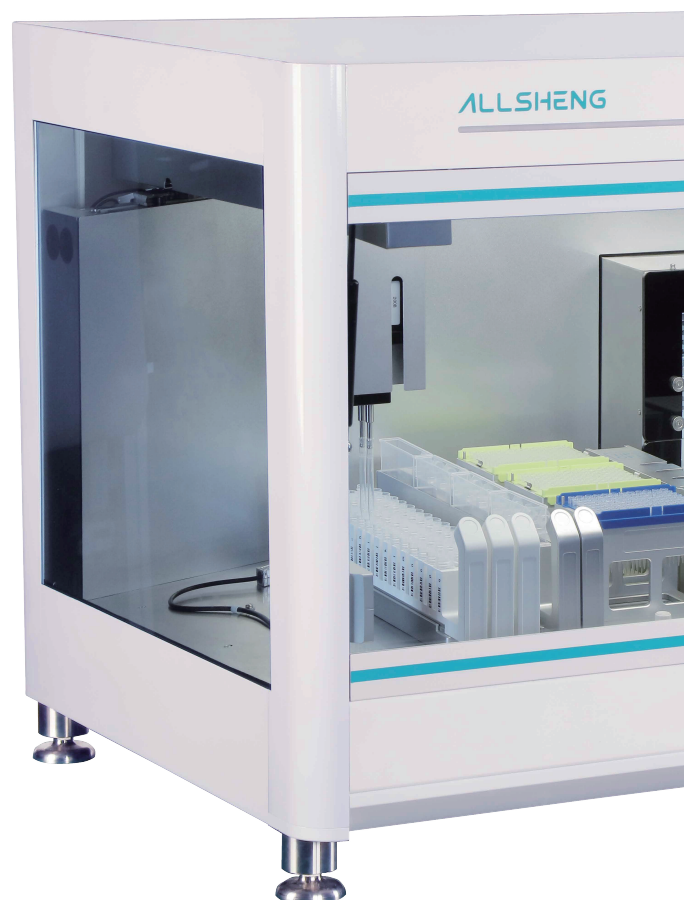
High-precision liquid handling

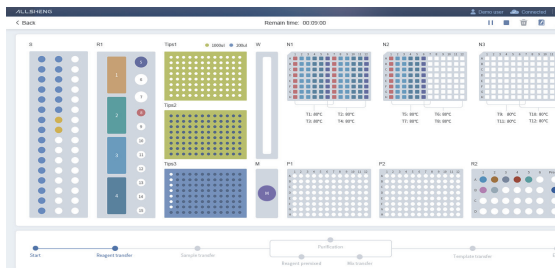
- 1+2 pipettors combination can meet various needs of sample, extraction reagent and PCR reagent
- The pipettor's pressure detection technology can not only detect the height of the liquid level, but also empty suction, residual liquid volume and blockage detection
- Detailed pipetting parameter settings for different liquids can effectively improve the accuracy



Effective cross-contamination prevention

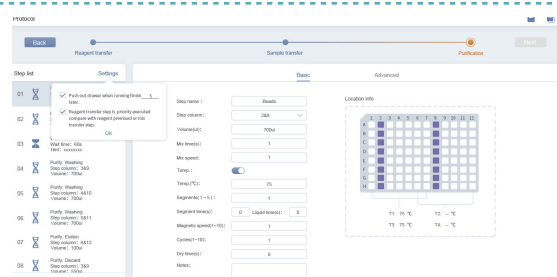
- Air displacement pipetting principle to avoid liquid contamination
- Anti-hanging drop technology to avoid dropping contamination
- Negative pressure filter system to prevent aerosol contamination
- Full coverage UV sterilization, exhaustive to clean the work-table





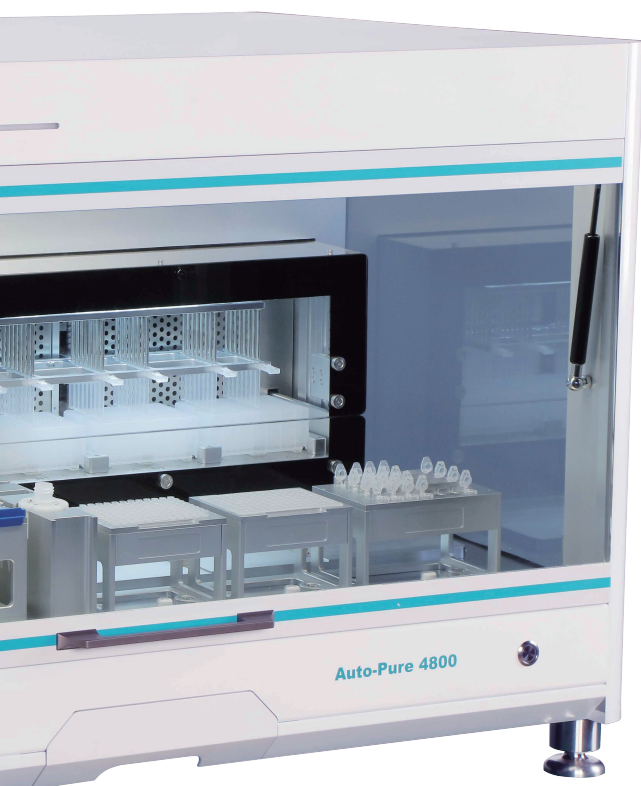
Easy-to-learn operating software

- Graphical user interface, program editing can be completed without complicated operations
- Built-in comprehensive libraries of consumable carriers, and liquids to reduce customer program matching time
- Users can simply select according to their needs to complete the whole process of liquid handling, extraction, and PCR / qPCR set-up



Open and reliable nucleic acid extraction system

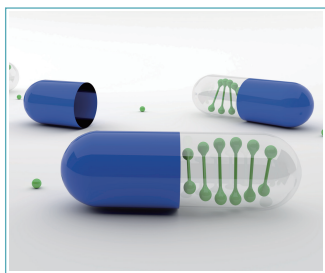
- Open software designing, it can be suitable for matching most of the magnetic-beads based on extraction reagents
- Various magnetic absorption methods can effectively solve problems of residual magnetic beads



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 pre-cooled in the refrigerator before working
- The PCR reagent block can be customized according to customer needs

Key Features

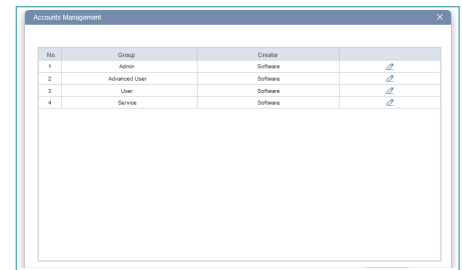


- Fully automated sample processing
- Sample and reagent traceability with barcode reader
- Parallel processing for purification and PCR set-up
- Reliability, robustness and precision with pipetting technology
- Adjustment of liquid specific parameters for best results
- Modular design - additional devices can be integrated
- Elution volume: from 40 μ L to 200 μ L
- Easy to clean and disinfect working area (UV lamp)
- Process a variety of sample types:
 - Blood ■ Saliva ■ FFPE ■ Buccal swab
- Software:
 - User-friendly software with wireless remote control or USB
 - Wide range of customisable protocols
 - Quick programming of every applicable protocol
 - Intuitive graphical user interface for simplified instrument control

Application Field	Applicable Sample
Clinical molecular diagnostics	Swab
Blood screening	Serum, plasma, whole blood
Health and epidemic prevention	Soil or environmental microorganisms
Animal husbandry and veterinary medicine	Animal and plant tissues
Food safety	Microorganism / cell culture fluid
Criminal detection	PCR / enzyme reaction substrate
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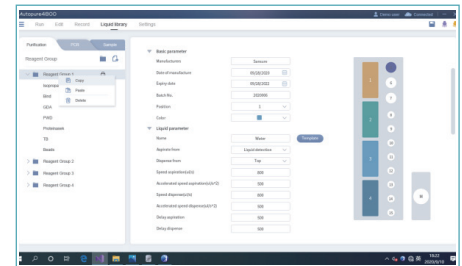
User Authorization Management

- The administrator has the highest authority, which can assign and manage sub-account authority, and ensures the safety and confidentiality of experimental results
- User independent account and password to ensure program stability



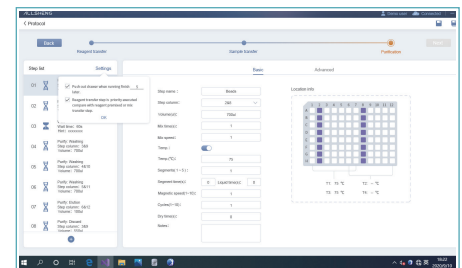
Powerful Reagent Management Function

- Reagents are classified and managed according to kits
- A lot of reagent kits can be logged, and the reagent usage can be traced in the whole process
- Calculate your reagent quantities



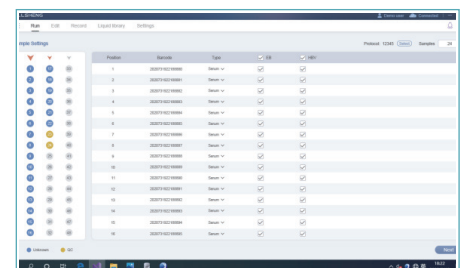
Open Nucleic Acid Extraction Setting

- Open extraction setting which can match reagents from different manufacturers
- Abundant parameter settings, effectively improving the efficiency of nucleic acid extraction
- Various magnetic absorption methods with magnetic rods to prevent residual magnetic beads
- It has the function of adding reagents in the middle of extraction process



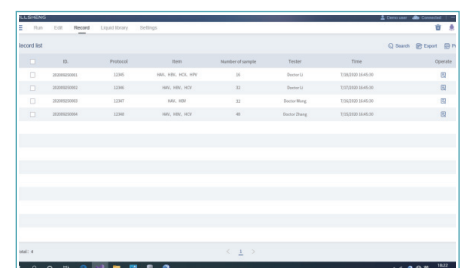
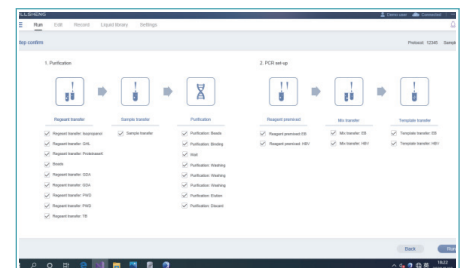
Reliable Sample Management

- The barcode scanner automatically reads the sample information
- Full track record of sample transferring
- Can be connected to the LIS system to facilitate data transmission and management
- Provide sample type selection and record sample information in detail



Detailed Operation Log

- The operation log can record the whole process of the instrument operation; and the whole process of sample and reagent pipetting, the robot arm movement can be traced
- Customers can view the operation log at any time
- The operation log can be exported and printed, which is more conducive to long-term storage



Parameters

Model	Auto-Pure 4800		
Parameter			
Function	Automatic pipette samples and reagents, extract nucleic acid and set-up PCR systems	Heating temperature	Elution temperature control: RT+5 °C ~ 120 °C Lysis temperature control: RT+5 °C ~ 120 °C
Information management	Support external USB scanner, barcode scanning function, automatic scanning function	Cooling module	4 °C~100 °C (Optional)
Pipetting principle	Air displacement pipetting technology	UV sterilization	Separate UV lamp: extraction area, pipetting area and waste container area
Pipettor	Two 1000 µL pipettors and one 200 µL pipettor	Instrument port	USB port
Pipetting range (µL)	1 ~ 1000	Power supply	100-240 V ±10 %, 50-60 Hz ±5 %
Tips	Allsheng tips, and other tips compatible with this instrument	Magnetic rods	48
Liquid detection	Pressure detection: liquid level detection, tip clogging detection and residual liquid detection	Power	Maximum 450 W
Samples per run	1 ~ 48	Computer system	Win10
Elution volume (µL)	40 ~ 200	Operating humidity	20 % ~ 90 %
Extraction uniformity	CV ≤5 %	Size (W x D x H) mm	1090 x 700 x 724

Pipetting Accuracy

	Pipettor specification	Pipetting range	Accuracy		Precision(CV)	
Pipetting accuracy	200 µL	1 ~ 200 µL	1 µL: ±12 % 100 µL: ±1 %	20 µL: ±3 % 200 µL: ±1 %	1 µL: ≤8 % 100 µL: ≤0.8 %	20 µL: ≤1.5 % 200 µL: ≤0.5 %
	1000 µL	5 ~ 1000 µL	5 µL: ±5 % 500 µL: ±1 %	100 µL: ±2 % 1000 µL: ±1 %	5 µL: ≤2.5 % 500 µL: ≤0.5 %	100 µL: ≤0.5 % 1000 µL: ≤0.3 %

Ordering Information

Code	Product name	Model	Remark
AS-17210-00	Automatic nucleic acid extraction system	Auto-Pure 4800	/

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