



ALLSHENG

**Auto-Pure<sup>®</sup>**

**Nucleic Acid Purification System**

Hangzhou Allsheng Instruments Co., Ltd.

## Nucleic Acid Purification System



Auto-Pure96/Auto-Pure48/Auto-Pure24

Auto-Pure96 can handle the maximum sample size of 96 and the maximum processing volume 1ml.

Auto-Pure48 can handle the maximum sample size of 48 and the maximum processing volume 3ml.

Auto-Pure24 can handle the maximum sample size of 24 and the maximum processing volume of 10 ml.

Open software design, compatible with various magnetic bead extraction kits.



Auto-Pure20A/Auto-Pure20B/Auto-Pure32A

Auto-Pure32A can handle the maximum sample size of 32 and the maximum processing volume of 1ml.

Auto-Pure20A can handle the maximum sample size of 20 and the maximum processing volume of 3ml.

Auto-Pure20B can handle the maximum sample size of 20 and the maximum processing volume of 5 ml.

Auto-Pure20B patent's left and right blending method solves the mass blending problem effectively.



Auto-Pure10B/Auto-Pure10BS/Auto-Pure16A

Auto-Pure10B/10BS can handle the maximum sample size of 10 and the maximum processing volume of 5 ml.

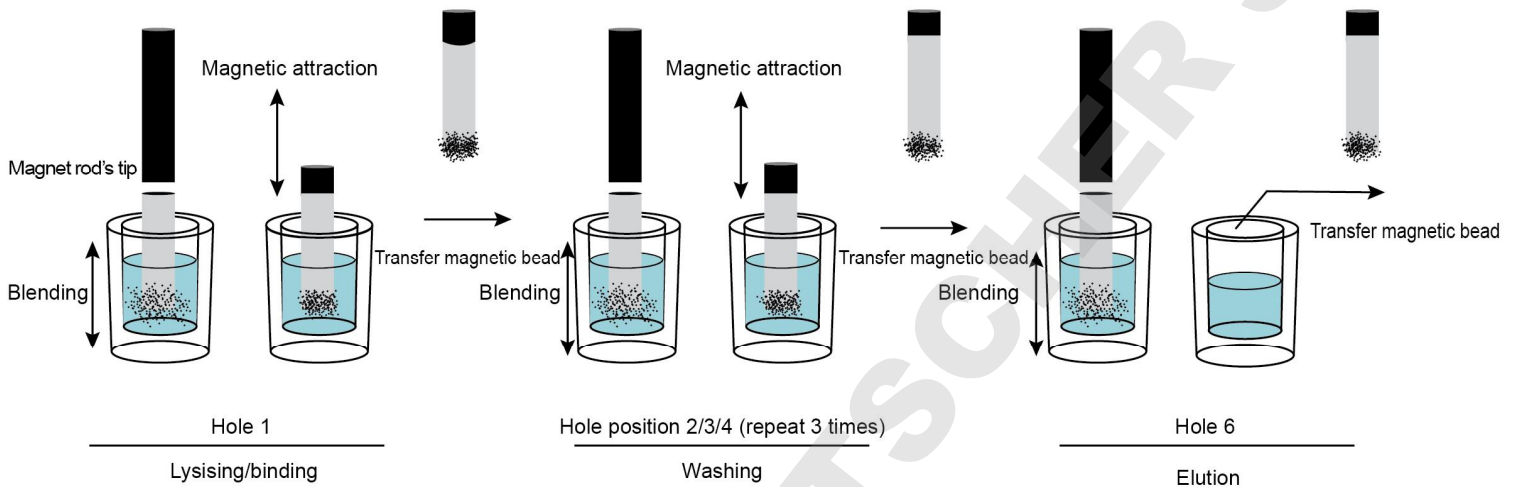
Auto-Pure16A can handle the maximum sample size of 16 and the maximum processing volume of 1ml.

Open software design, compatible with various magnetic bead extraction kits.

## Nucleic Acid Purification System working principle

Nucleic Acid Purification System is a instrument which extracts and purifies nucleic acid by magnetic bead method. It has high automation, fast extraction speed, stable results, simple operation and less toxicity of reagents.

Nucleic Acid Purification System combined with different kinds of magnetic bead nucleic acid extraction reagents can quickly extract nucleic acid from animal and plant tissues, blood, body fluid, criminal samples and so on. It is widely used in scientific research, Disease control system, food safety, forensic medicine, clinical monitoring and other fields.



## Application and target customer of Auto-pure20B

Sample type	Whole Blood	Plasma	Faeces	Sputum
Amount of sample	200ul-3ml	1-3ml	2-3ml	1ml Liquefied sample
Application	Used for construction of biological sample database and other applications that require a large amount of genomic DNA.	Extraction of Viral nucleic acid. Blood screening. Antenatal screening.	Extraction of DNA from exfoliated cells in the stomach and intestine.	Diagnosis of pulmonary tuberculosis.

Note: Too many or too few samples will affect the extraction results.

## Application and target customer of Auto-pure32A

Sample type	Plant/Animal tissues	Whole Blood	Plasma	Test paper	Forensic examination materials
Amount of sample	10-20mg/50-100mg	200-300ul	200ul	400-600ul	400-600ul
DNA Extracting Volume	5~20 µg	2~10µg	Very low concentration that needs to be detected by PCR directly.	Very low concentration that needs to be detected by PCR directly.	Very low concentration that needs to be detected by PCR directly.
Application	used for the research of specific gene function, animal and plant disease etc.	used for specific genes function research etc.	Viral nucleic acid extraction, disease diagnosis	Viral nucleic acid extraction, disease monitor	Extract exfoliated cell genomic DNA, STR typing to identify suspects

Note: Too many or too few samples will affect the extraction results.

## Nucleic Acid Purification System selection guide

Picture							 <p>block heating function Auto-Pure10BS Auto-Pure16A</p>		
Type	Auto-Pure96	Auto-Pure48	Auto-Pure24	Auto-Pure32A	Auto-Pure20A	Auto-Pure20B	Auto-Pure10B	Auto-Pure10BS	Auto-Pure16A
Maximum processing volume	1ml	3ml	10ml	1ml	3ml	5ml	5ml	5ml	1ml
Sample quantity	96	48	24	32	20	20	10	10	16
Consumable									
Note	Suitable for large sample size inspection units, third-party testing companies.	It can meet the user's requirements of large sample processing volume and high throughput at the same time	Suitable for gut microbial gene pool extraction of free nucleic acid.	Suitable for routine sample extraction of blood, animal and plant tissues.	It is used to extract single sample, especially suitable for scientific research institutes.	Suitable for free DNA and nucleic acid sample library, nucleic acid supersensitive detection.	The instrument has the function of lysis hole heating, elution hole heating, suitable for on-site extraction.	Add the function of block heating on the basis of Auto-Pure 10B, which is the ideal choice for small laboratory.	Suitable for small amount of routine sample extraction.

# Auto-Pure96/Auto-Pure48/Auto-Pure24 Nucleic Acid Purification System



## ■ Production introduction

Auto-Pure96/Auto-Pure48/Auto-Pure24 Nucleic Acid Purification System adopts magnetic bead separation technology, using 96×2.2ml Deep well plate and 96 magnetic rod's tip (1,000ul reaction system) and 48×5ml Deep well plate and 24 magnetic rod's tip (5,000ul reaction system) and 24×14ml Deep well plate and 24 magnetic rod's tip (10,000ul reaction system). Combined with different kinds of magnetic bead nucleic acid extraction kits, it can operate 1-96 samples or 1-24 samples simultaneously and extract DNA and RNA rapidly in 30-60 minutes.

## ■ Features

### ➤ Simple, intelligent operation

- » Built-in lighting LED lights, it can observe the running status of the instrument in real time.
- » The front cover can be opened for quick stop, which is convenient for reagent optimization and observation.
- » Intelligent operation with self-inspection, power protection function.
- » 8-plate position automatic identification design. No manual adjustment required.

### ➤ Multiple pollution control

- » Drip-proof plate design with software control magnetic beads drying mode, to prevent the liquid splashing in the experiment process.
- » Disposable consumables can eliminate the cross contamination between holes and batches. It has built-in disinfection function which can do regular UV disinfection.

### ➤ Extension Internet

- » It can be controlled by phone app software to check the running status of the instrument in real time.
- » Thoroughly releasing manpower, remote monitoring.

### ➤ High quality and rapid extraction

- » Auto-Pure 96 can process 96×1ml samples simultaneously.
- » The maximum sample size is 10ml.
- » It can effectively avoid the influence of human factors on the experiment.

### ➤ Open software design, software can be edited freely

- » Room temperature + 5℃~120℃, accurate temperature control.
- » Single machine can do program editing.
- » The software has complete functions and is suitable for all kinds of magnetic bead reagents.
- » Diverse binding and magnetic absorption modes, which is conducive to reagent optimization.

### ➤ Reliable structure and stable operation

- » Auto Pure96/48/24 adopts lead screw drive to realize lifting movement with high precision.
- » Patent structure design with center rotary table which makes it occupy less area.
- » Patent design for automatic loading and unloading structure of magnetic rod tip comb, which guarantee stability and liability. (Success rate>99.99%)

## ■ Instrument features



With openable carbon door



Turnplate design with small occupied space and stable operation.



Patent structure of magnetic rod sleeve loading and unloading, more stable and reliable.

## ■ Parameters

Model	Auto-Pure96	Auto-Pure48	Auto-Pure24
Throughput	1~96	1~48	1~24
Process volume	50~1000 $\mu$ l	200~3000 $\mu$ l	200~10000 $\mu$ l
Consumables	96-deep well plate + 96 magnetic rod's tip	3ml tube strips + magnetic rod's tip	10ml tube strips + magnetic rod's tip
Working principle	Magnetic beads method		
Purification accuracy	100 copy sample positive rate > 95%		
Stability	CV<5%		
Magnetic beads recycling rate	>95%		
Lysis temp.	Ambient temperature ~120 $^{\circ}$ C		
Elution temp.	Ambient temperature ~120 $^{\circ}$ C		
Mixing	Mixing ways can be editable		
Operation interface	7-inch touch screen, 3 shortcut buttons and mouse is available		
Built-in protocol	8 groups of preset protocols, 100 groups of protocols can be stored		
Protocol management	New, Edit, Delete, Save as		
Expansion interface	Standard USB, ethernet port and WIFI are available		
Lighting	Yes		
Pollution control	UV light		
Exhaust way	By Fan		
Data storage	Available, with built-in SD card		
Max. input power	300W		
Dimension	56cm $\times$ 62cm $\times$ 50cm		
Weight	54kg		

# Auto-Pure20A/Auto-Pure20B Nucleic Acid Purification System



## ■ Production introduction

For Auto-Pure20A/Auto-Pure20B, we made improvements on sample processing volume based on Auto-Pure32A, the max processing volume of Auto-Pure20A is 3ml while Auto-Pure20B is 5ml. Auto-Pure20B is with patent of left and right shaking, special tube strips which can avoid waste and more suitable for customers who have small sample volumes.

## ■ Features

### Auto-Pure20A

- Patent tube strips with individual packing.
- Tube strips are with two sample wells, the first one is for 2ml volume while second 1ml, users can choose according to actual demand.
- The max. processing volume is 3ml, and the maximum of sample volume is 1.2ml.
- It can be used separately for nucleic acid extraction and purification which decreased kits waste, more suitable for research use.
- Special designed drawer which makes samples easy put in or taken out.
- Open software makes various parameters set freely and can meet requirements of different reagents.

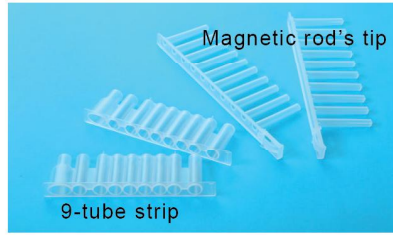
### Auto-Pure20B

- With large sample processing capacity - the max processing volume is 5ml and the maximum sample volume is 2ml.
- Patent 5ml tube strips are with individual packing which can extract and purify single sample.
- With patent left and right mixing way which is suitable for free DNA extraction, Nucleic Acid sample library, Blood Nucleic Acid screening, Nucleic acid hypersensitivity test.
- Special designed drawer makes it convenient for kits put in or taken out.
- Open software makes various parameters set freely, such as mixing speed, magnetic mode, heating type etc.

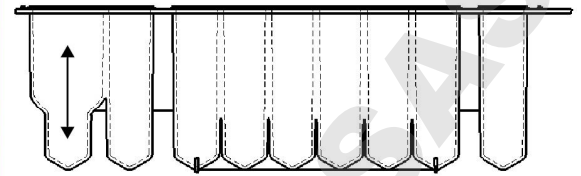
## ■ Modular design with multiple functions as optional



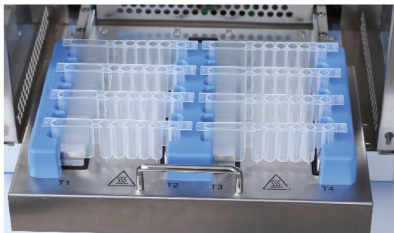
Auto-Pure20A



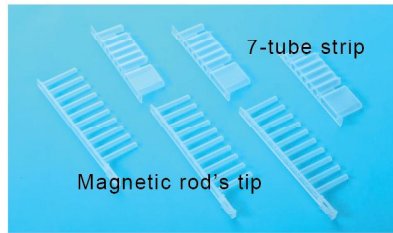
Auto-Pure20A consumables



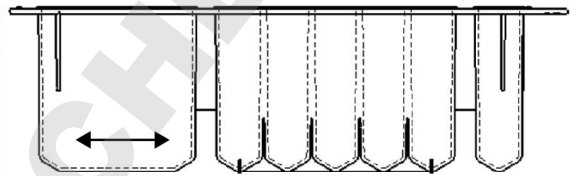
Auto-Pure20A is designed for processing the sample volume from 1ml to 3ml.



Auto-Pure20B



Auto-Pure20B consumables



Auto-Pure20B is used with the horizontal mixing patent design for processing the large volume sample.

## ■ Parameters

Model	Auto-Pure20A	Auto-Pure20B
Throughput	1~20	1~20
Process volume	50~3000µl	50~5000µl
Consumables	2ml tube strips + magnetic rod's tip	5ml tube strips + magnetic rod's tip
Working principle	Magnetic beads method	
Purification accuracy	100 copy sample positive rate > 95%	
Stability	CV<5%	
Magnetic beads recycling rate	>95%	
Lysis temp.	Ambient temperature ~120℃	
Elution temp.	Ambient temperature ~120℃	
Mixing	Mixing ways can be editable	
Operation interface	7-inch touch screen, 3 shortcut buttons and mouse is available	
Built-in protocol	8 groups of preset protocols, 100 groups of protocols can be stored	
Protocol management	New, Edit, Delete, Save as etc.	
Expansion interface	Standard USB, ethernet port and WIFI are available	
Lighting	Yes	
Pollution control	UV light	
Exhaust way	By Fan	
Data storage	Available, with built-in SD card	
Max. input power	450W	450W
Dimension	40cm×52cm×45cm	40cm×52cm×45cm
Weight	30kg	30kg

# Auto-Pure32A Nucleic Acid Purification System

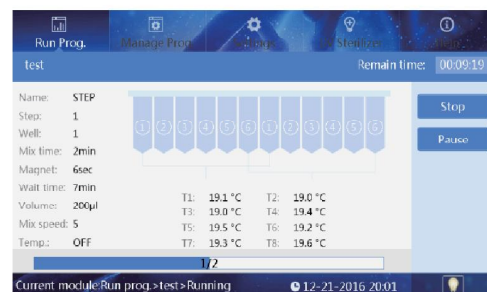
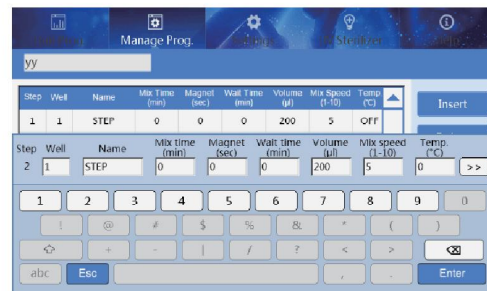


## ■ Production introduction

Auto-Pure32A Nucleic Acid Extraction and Purification Instrument is a device that extracts and purifies 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 bead nucleic acid reagents. It is widely used in scientific research, disease control system, food safety, forensic medicine, clinical monitoring and other fields.

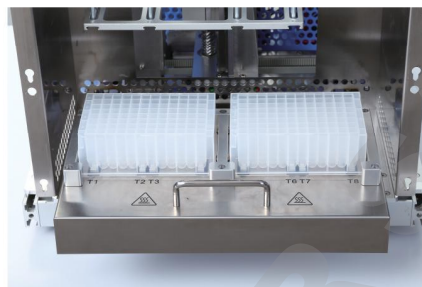
## ■ Auto-Pure32A

- Purification of 32 samples in one run.
- Convenient drawer injection, 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.

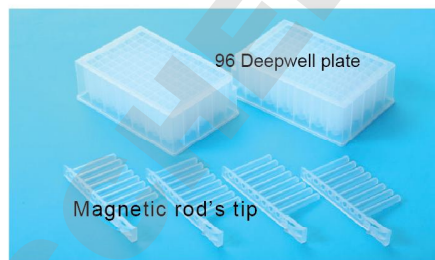


Operation Interface

## Instrument features



Convenient drawer injection



Auto-Pure32A consumables

## Parameters

Model	Auto-Pure32A
Throughput	1~32
Process volume	50~1000ul
Consumables	96 Deepwell plate
Working principle	Magnetic beads method
Software security design	Operating system encryption function can effectively prevent malicious tampering with parameters and programs
Anti-pollution design	6 fan convection design to effectively prevent aerosol pollution
Purification accuracy	100 copy sample positive rate>95%
Stability	CV<5%
Magnetic beads recycling rate	>95%
Lysis temp.	Ambient temperature ~120°C
Elution temp.	Ambient temperature ~120°C
Mixing	Mixing ways can be editable
Operation interface	7 inch color touch screen, 3 shortcuts, external mouse
Built-in protocol	8 groups of preset protocols, 100 groups of protocols can be stored
Program management	New, Edit, Delete, Save as etc.
Expansion interface	Standard USB, ethernet port and WIFI are available
Lighting	Yes
Pollution Control	UV light
Exhaust way	By fan
Data storage	Available, with built-in SD card
Max. input power	450W
Dimensions	40cm×47cm×45cm
Weight	28kg

# Auto-Pure10B/Auto-Pure10BS/ Auto-Pure16A Nucleic Acid Purification System



Auto-Pure10B



Auto-Pure10BS



Auto-Pure16A

## ■ Production introduction

Auto-Pure10B/Auto-Pure10BS/Auto-Pure16A is a miniaturized magnetic bead method nucleic acid extraction and purification instrument, which is developed on the basis of Auto-pure20B and Auto-pure32A. Auto-pure10 series can extract up to 10 samples at the same time, with a maximum sample volume of 5ml. Auto-pure10BS combined with block heating function, small instruments in volume, it is an overwhelming choice for large sample extraction on site, Auto-pure16A can accept 16 samples at most simultaneously, maximum sample volume is 1ml. With different kinds of magnetic bead nucleic acid reagents, nucleic acids in animal and plant tissues, blood, body fluids, criminal examinations and other samples can be quickly extracted.

## ■ Auto-pure10 series

### Auto-Pure10B

Maximum sample processing volume 5 ml, up to 10 samples can be processed at the same time, the instrument has its own lysis well, elution well, heating function.

### Auto-Pure10BS

Composite, maximum sample volume 5 ml, up to 10 samples can be processed at the same time, on the basis of 10B, increase the function of block heating.

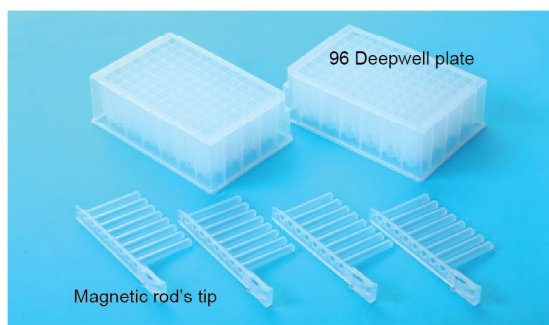
## ■ Auto-Pure16A

On the basis of Auto-Pure32A, the maximum sample handling capacity can be reduced, and up to 16 1ml samples can be processed simultaneously. It is an ideal choice for automated extraction in small laboratories.

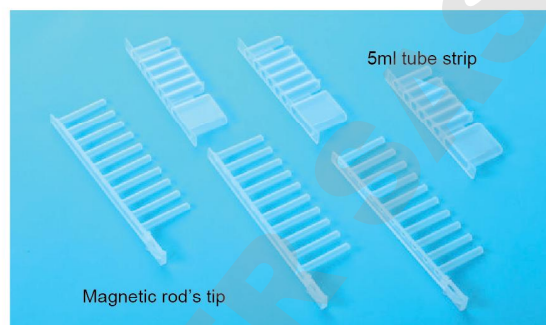
## ■ Features

- 4.3 inch touch screen, easy to use.
- Temperature and protocols can be edited and Saved according to different reagent requirement.
- Short operation time: 15~40min per run.
- High yield of nucleic acid with low magnetic bead loss and good repeatability of results.
- UV disinfection, avoid cross contamination.
- Open system which can apply to different magnetic bead extraction reagent.
- APP software (Android system) which can monitor the system in real time through mobile device.
- Built-in PC software, APP software, editing, setting, management procedures more simple.
- 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.

## ■ Modular design with multiple functions as optional



Auto-Pure16A consumable



Auto-Pure10B/10BS consumable

## ■ Block heating function of Auto-Pure 10BS

10BS integrates dry bath function, heating block can be replaced, different well size block can be selected for different applications, greatly expanding the scope of application of the instrument. For example, it can be used in the incubation and lysing process of sample Pre-Processing, which can reduce the area occupied by the instrument and save the cost of the instrument. In addition, with specific constant temperature amplification detection kit, it can also be used for constant temperature amplification detection of samples, and can quickly check the qualitative results of extracted samples.

## ■ Parameters

Model	Auto-Pure10B	Auto-Pure10BS	Auto-Pure16A
Throughput	1~10	1~10	1~16
Process volume	50~5000ul	50~5000ul	50~1000ul
Consumable	5ml tube strip+ Magnetic rod's tip		96 Deepwell plate+ Magnetic rod's tip
Block heating	None	Yes (Rt+5°C~105°C)	None
Lysis temp.	Ambient temperature~120°C	Ambient temperature~120°C	Ambient temperature~120°C
Elution temp.	Ambient temperature~120°C	Ambient temperature~120°C	Ambient temperature~120°C
Purification accuracy	100 copy sample positive rate>95%		
Stability	CV<5%		
Collection efficiency	>95%		
Mixing	Mixing methods is editable according to different requirements		
Operation interface	4.3 inch touch screen, 3 shortcut keys, external mouse		
Built in protocol	Preset 6 group programs, 100 pcs program can be saved		
Program management	PC software, APP software, Program editing, Easier management		
Extension interface	Standard USB, LAN, Wifi		
Lighting	Yes		
Pollution Control	UV light		
Exhaust way	By Fan		
Data storage	Built-in SD card		
Max. input power	300W	350W	300W
Dimensions	340×350×410mm	340×350×410mm	340×350×410mm
Weight	18kg	18.5kg	18kg

## ■ Ordering information

Code	Description
AS-17040-00	Auto-Pure32A, AC100 - 240V, 50/60Hz
AS-17040-00	Auto-Pure20A, AC100 - 240V, 50/60Hz
AS-17050-00	Auto-Pure20B, AC100 - 240V, 50/60Hz
AS-17060-00	Auto-Pure96, AC100 - 240V, 50/60Hz
AS-17070-00	Auto-Pure24 , AC100 - 240V, 50/60Hz
AS-17080-00	Auto-Pure48 , AC100 - 240V, 50/60Hz
AS-17110-00	Auto-Pure10B , AC120V/240V, 50/60Hz
AS-17130-00	Auto-Pure10BS , AC120V/240V, 50/60Hz
AS-17140-00	Auto-Pure16A, AC120V/240V, 50/60Hz
AS-17100-00	FCM-1 Film Cutting Machine
AS-15020-00	SealBio-2 Plate Sealer
AS-17031-01	96-Deepwell plate for Auto-Pure32A/16A
AS-17031-02	Magnetic rod's tip for Auto-Pure32A/16A
AS-17041-01	Tube strips for Auto-Pure20A – 3ml
AS-17041-02	Magnetic rod's tip for Auto-Pure20A/20B/10B/10BS
AS-17051-01	Tube strips for Auto-Pure10B/10BW/10BS
AS-17061-01	Magnetic tip comb for Auto-Pure96
AS-17061-02	96-Deepwell plate for Auto-Pure96
AS-17071-01	Magnetic tip comb for Auto-Pure24
AS-17071-02	24x14.6ml plate for Auto-Pure24
AS-17081-01	Magnetic tip comb for Auto-Pure48
AS-17081-02	48x5ml plate for Auto-Pure48
AS-15021-03	SBA-3 Weighted sealing platen
AS-15021-04	Adapter for Auto-Pure20 series tube strips
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



FCM-1 Film Cutting Machine



SealBio-2 Plate Sealer

# Relevant Products

## Sample lysis



### Bioprep Series Homogenizer

Bioprep series homogenizer with function of grind, lysis and homogenizing by three-dimensional vibration and coordinate the grind beads. Effective to homogenize the animal or plant tissue, bacteria, fungus and so on. Use with the proper program for fast, effective, reliable extraction the DNA/RN-R/Protein from sample and preserve the integrity of biomolecule.

## Sample pre-processing



### iCEN(R) High Speed (Refrigerated) Centrifuge

iCEN high speed centrifuge with the capacity of centrifuge 24x1.5/2.0ml tube in the same time, only 15s needed to reach to the highest speed 15,000rpm. Special air duct design to make the noise <60db even working with the highest speed.



### Thermo Shaker Incubator

Heating part modular design, compatible with different brand and dimension tube, also supply customize service. We have variety products with multiple function of heating, cooling and shaking to meet with the customer different requirements.

## Sample Purification



### Auto-Pure Series Purification System

Auto-Pure series products are automated system for purifying and extraction the nucleic acid by magnetic beads method. Several Auto-Pure products with open system for customer choosing to meet with customer's different requirements.

## Sample Quality Control



### Nano-300 Micro-spectrophotometer

Full wavelength(200-800nm) Microspectrophotometer only require 2 $\mu$ l sample for accurate and quick determinate the concentration of nucleic acid. With the HD touch screen and operation system available to do the sample test and data save work without computer.



### Fluo-100 Fluorometer

Use with high sensitive quantitative analysis kit to measure the the concentration of DNA,RNA and protein. The lowest test concentration up to 0.5pg/ul

# Allsheng



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