NUCLEIC ACID PURIFICATION SYSTEMS

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NUCLEIC ACID PURIFICATION SYSTEMS

Nucleic Acid Purification is also known as nucleic acid extraction or nucleic acid isolation is a fundamental technique in molecular biology and genetics that allows isolation, purification and concentration of nucleic acids, DNA, and RNA molecules from biological samples. The sample is first subjected to mechanical disruption or enzymatic digestion that leads to the cell lysis and releases the nucleic acid molecules that are precipitated followed by purification to remove impurities such as lipids, proteins and cellular debris. Further, the nucleic acids are concentrated and eluted to obtain high-purity nucleic acid samples. It has various practical applications in clinical virus diagnosis, microbial detection, gene sequencing, southern blot method and polymerase chain reaction, etc.

LTNAP8-1 NUCLEIC ACID PURIFICATION SYSTEM

Easy Operation-unique remote control pad saving time and improve your work efficiency.

Flexible solution-pre-loaded portocols selection for up to 15, 32 or 48 samples per run.

Fast startup and immediate results-with special rapid reagents, the extraction can be done within 10 minutes.

Reliable result you can depend on-high-quality nucleic acid ready to use in sensitive downstream applications.

SPECIFICATIONS

Model	LTNAP8-1
Processing Volume	30 -1500 μl，30-1000 ul
Capacity	15,32,48 samples per run customized
Collection Efficiency of the magnetic particles	≥95%
Heating Temperature For Cell Lysis	Room temperature to 120℃
Heating Temperature for Nucleic Acid Elution	Room temperature to 120℃
Processing Mode	Multi-mode, multi-speed available
Reagents	Reagents suitable for Magnetic Particle Method
Operation Interface	English Language Operating System, Touch-control Operation
Storage Capacity	15 preinstalled protocols in main unit, unlimited in pad
Protocol Management	Create, edit, delete, protocol mode
Pollution Control	UV light
Computer Interface	USB
Network Communication	Ethernet(optional)
Dimensions(WxLxH)	440×435×445 mm
Weight	31.5 kg
Power Requirements	C110±10%/230V±10%, 50Hz/60H±1 Hz, 600 W
Temperatures allowed during operation	10-40℃
Relative humidity allowed during operation	<80%

LTNAP8-2 NUCLEIC ACID PURIFICATION SYSTEM

Very simple operation (easy to install, operate, maintain) without computer. With process volume of 50 ~1000 ul

Very fast extraction protocol, 15~40 minutes/cycle depending on sample type and method.

Universal built-in program for easy using.

High purity and excellent yield of nucleic acid.

UV lamp to avoid cross-contamination.

3 shortcut key to make for easy running, stopping the magnetic beads program.

Open system can optimize purification proposal according to various magnetic beads kits.

Drawer design to prevent possible injuries.

With special plastic consumables to avoid cross-contamination.

Improves workflow, and allows staff to perform other value-added tasks.

Ensures impurities are removed; improved sample quality leads to better downstream analyses.

Capable of extracting 1~20 samples or 1~32samples per run and process samples up to 1ml, 3ml, and 5ml.

Alarm for indicating the completion of purification.

Pause function for emergent stop.

SPECIFICATIONS

Model	LTNAP8-2
Storage Capacity	more than 100 programs
Protocol Management	Create, edit, delete, protocol mode
Pollution Control	UV light
Dimensions(WxLxH)	400x470x450 mm
Weight	25 kg
Throughput	1~32
Process Volume	50~1000 ul
Collection Efficiency	>95%
Magnetic Rod Number	32
Purification Accuracy	100 copy sample positive rate>95%
Stability	CV<5%
Plate Types	96 deep well plate
Heating for lysis tube	Ambient temperature~120°C
Heating for elution tube	Ambient temperature~120°C
Operation	7-inch color touchscreen
Extraction Steps	Lysis, Sample Binding, Washing and Elution
Lighting	Yes
Extension Interface	4 standard USB port, built-in SD card
Exhaust	Fan
Power Supply	450 W

OPTIONAL ACCESSORIES

Accessory Code	Name
5000809008	96-Deepwell plate
5000809009	Magnetic rod's tip

LTNAP8-3 NUCLEIC ACID PURIFICATION SYSTEM

It is easy to use with 7-inch touchscreen with process volume 50 ~ 3000ul

Very simple operation (easy to install, operate, maintain) without computer.

Very fast extraction protocol, 15~40 minutes/cycle depending on sample type and method.

Universal built-in program for easy using.

High purity and excellent yield of nucleic acid.

UV lamp to avoid cross-contamination.

3 shortcut key to make for easy running, stopping the magnetic beads program.

Open system can optimize purification proposal according to various magnetic beads kits.

Drawer design to prevent possible injuries.

With special plastic consumables to avoid cross-contamination.

Improves workflow, and allows staff to perform other value-added tasks.

Ensures impurities are removed; improved sample quality leads to better downstream analyses.

Capable of extracting 1~20 samples or 1~32samples per run and process samples up to 1ml, 3ml, and 5ml.

Alarm for indicating the completion of purification.

Pause function for emergent stop.

SPECIFICATIONS

Model	LTNAP8-3
Storage Capacity	more than 100 programs
Protocol Management	Create, edit, delete, protocol mode
Pollution Control	UV light
Dimensions(WxLxH)	400x520x450 mm
Weight	28 kg
Throughput	1~20
Process Volume	50~3000ul
Collection Efficiency	>95%
Magnetic Rod Number	20
Purification Accuracy	100 copy sample positive rate>95%
Stability	CV<5%
Plate Types	3 ml tube strip
Heating for lysis tube	Ambient temperature~120°C
Heating for elution tube	Ambient temperature~120°C
Operation	7-inch color touchscreen
Extraction Steps	Lysis, Sample Binding, Washing and Elution
Lighting	Yes

Extension Interface	4 standard USB port, built-in SD card
Exhaust	Fan
Power Supply	450 W

OPTIONAL ACCESSORIES

Accessory Code	Name
5000810008	Tube strips
5000810009	Magnetic rod's tip

LTNAP8-4 NUCLEIC ACID PURIFICATION SYSTEM

Easily to use with 7-inch touchscreen.

Very simple operation (easy to install, operate, maintain) without computer.

Very fast extraction protocol, 15~40 minutes/cycle depending on sample type and method.

Universal built-in program for easy using and high purity and excellent yield of nucleic acid.

UV lamp to avoid cross-contamination.

Open system can optimize purification proposal according to various magnetic beads kits.

Drawer design to prevent possible injuries.

Capable of extracting 1~20 samples or 1~32samples per run, and process samples up to 1ml, 3ml and 5ml.

Patented design for 5ml tubes strip.

Process samples up to 5ml and Max sample volume 2ml.

Patented design for line-mixing the sample, it is good for cell-free fetal DNA and next-generation sequencing.

Technology and non-invasive prenatal diagnosis.

SPECIFICATIONS

Model	LTNAP8-4
Storage Capacity	more than 100 programs
Protocol Management	Create, edit, delete, protocol mode
Pollution Control	UV light
Dimensions(WxLxH)	400x520x450 mm
Weight	28 kg
Throughput	1~20
Process Volume	50~5000ul
Collection Efficiency	>95%
Magnetic Rod Number	20
Purification Accuracy	100 copy sample positive rate>95%
Stability	CV<5%
Plate Types	5 ml tube strip
Heating for lysis tube	Ambient temperature~120°C
Heating for elution tube	Ambient temperature~120°C
Operation	7-inch color touchscreen

Extraction Steps	Lysis, Sample Binding, Washing and Elution
Lighting	Yes
Extension Interface	4 standard USB port, built-in SD card
Exhaust	Fan
Power Supply	450 W

OPTIONAL ACCESSORIES

Accessory Code	Name
5000810009	Magnetic rod's tip
5000811008	Tube strips

LTNAP9-1 NUCLEIC ACID EXTRACTION SYSTEM

High purity extraction, easy to operate and fully automated

High throughput, can process 1-96 samples at a time, save time

With professional extraction kit, extraction process optimization

Large program capacity, can store 1-100 groups of programs

With constant temperature function to ensure the best reaction temperature in the purification process

Friendly operation interface, easy to understand, no external computer, no special training

Compact appearance, solid material, long design life

SPECIFICATIONS

Model	LTNAP9-1
Sample Capacity Screen	10.1 inch touch
Sample Volume	20μl-1000μl
Sample Capacity	1-96
Magnetic Bead Recovery	> 98%
Extraction Time	Depending on the reagents
Extracting the Difference Between Holes	CV<3%
Operating Temperature	RT – 120℃
Product Purity A260/A280	DNA> 1.7-2.0; RNA> 1.8-2.1
Shock Mixing	Adjustable Speed (1-3)
Reagent Type	Open System for Magnetic Bead Method
Program Storage	48 groups
Safety Door Design	Safety door opened, the program operation will be automatically suspended, avoid cross-contamination
Disinfection Method	UV Light, Aerosol adsorption
External Size	770x530x540 mm
Package Size	910x670x780 mm
Gross Weight	95 kg
Consumption	500 W
Power Supply	AC100V-240V 50Hz/60Hz

LTNAP9-2 NUCLEIC ACID EXTRACTION SYSTEM

Friendly user interface: Smart & Intelligent display

With 10.1 inch LCD touch screen, Windows operating system

Zero Aerosol Contamination High efficiency HEPA filter and Auto safety door protection function, safety door protection function, HEPA filter and UV lamp

replacement HEPA filter and UV lamp replacement alarm functions

UV Sterilization Lamp

With manual or set automatic opening time UV lamp

sterilizing the operation area easily and effectively

Integrated Shaking &Heating Module Mix deep wells while heating, saving extraction time

SPECIFICATIONS

Model	LTNAP9-2
Extraction Method	Magnetic Bead
Sample Capacity	32
Processing Volume	20-1000 μL
Extraction Time	15min-60min
Magnetic Bead Recovery	≥98%
Extraction Difference Between Wells	＜3%
Magnetic Rod Flux	4500Gs
Temperature Range	Adjustable heating function, RT-100℃
Oscillating Mixing	Vertical Mixing, low, medium,high three gears adjustable
Module Station	2
Protection Function	Star up self-chekcing,power off protection, high temperature alarm, over temperature protection, motor protection
Disinfection Method	8W UV Lamp
Illuminating Lamp	3.4 W LED Lamp
Operation Interface	10.1 inch capacitive touch screen / Windows system
Barcode Scanning Function	Optional external barcode sanner
Project Storage	>1000
Interface	2 USB port，optional LAN port
Contamination Control	Class II HEPA filter can effectively filter the internal aerosol and prevent cross contamination
IAP Function	Firmware can be updated online at any time
External Size	450x440x532 mm
Package Size	538x538x750 mm
Gross Weight (kg)	37 kg
Power Supply	AC100-240V 50Hz/60Hz

LTNAP9-3 NUCLEIC ACID EXTRACTION SYSTEM

Accurate pipetting, air pressure correction can adapt to extreme environments such as flat ground, plateau, island, etc., to ensure the accuracy of pipetting

96 samples can be processed within 60 minutes, realizing high-throughput processing of samples, saving time and effort

Reagent position and PCR plate position, can be refrigerated at 4℃

With high-efficiency filter, ultraviolet disinfection and sterilization, and safety door functions, effectively prevent microbial pollution

Multi-threaded control and three-module extraction can run three different extraction programs at the same time

Intelligent temperature control, over-temperature protection function

Preset multiple experimental programs, strong compatibility, suitable for various types of sample graphic guides, visualized operations

Nucleic acid products can be allocated to the 2*96 PCR reaction system to flexibly construct a variety of different PCR detection systems

SPECIFICATIONS

Model	LTNAP9-3
Extraction Method	Magnetic Bead Method
Working Mode	Automatic sampling + Nucleic acid extraction + PCR reaction system addition
Throughput	1-96, Linear slide type sample rack
Extraction Volume	20-1000 ul
Processing Time	Complete the processing of 96 samples within 60 minutes (related to reagents)
Magnetic Bead Recovery	≥98%
Temp Range	RT-105℃, Lysis and elution position
Temp Accuracy	0.1℃
Heating Method	Dry bath heating
Heating Speed	RT-100℃≤6min
Shaking Function	Up and down oscillation (1-5 gears adjustable)
Extraction Position	6 (96-well deep well plate)
Robotic arm	A robotic arm for adding samples and reagents
Pipetting Channel	2 Channel
Liquid Detection	Pneumatic liquid level detection principle, intelligent detection of blocked needle
Pipetting Tip	50ul,200ul,1000ul, Disposable black conductive needle with filter element
Tip Amount	2-3 Tips/sample
Pipetting Accuracy	10ul, CV≤3.0%, Accuracy≤5.0%, 50ul Tip 50ul, CV≤2.0%, Accuracy≤2.0%, 1000ul Tip 100ul, CV≤1.5%, Accuracy≤2.0%, 1000ul Tip
Sample Volume	2-1000 ul
Working Zone	2 PCR positions with cooling function 6 Tip positions for three types of Tips 2 Reagent positions (5ml freezing tube rack position with cooling function, one reserved position)
Protective function	Start up self-test, Power-off protection, High temperature alarm, Over-temperature protection, Tip removal protection
Disinfection method	UV lamp (30Wx1, 8xW1)
Illumination Lamp	10W LED lamp
Audible Alarm	Yes (Red and blue blinking)
Safety Door Design	With safety lock function, the safety door is opened and the program is suspended
Display	10.1inch touch screen, Windows System

Scanning	Optional
Interface	LAN interface (Bi-direction LIS optional)
Contamination control	Built-in air duct and HEPA filter can effectively filter internal aerosols and prevent cross-contamination
IAP Function	Firmware can be upgraded online at any time
External Size	1420x850x1842 mm
Package Size	1535x970x1180 mm (Main instrument) 1540x970x1160 mm(Base)
Gross Weight	360kg(Main instrument) 190kg(Base)

LTNAP9-4 NUCLEIC ACID EXTRACTION SYSTEM

Display: 10.1 inch touch screen, easy to operate

Accurate temperature control and rapid temperature rise, can be adopted to actively reduce to room temperature and store samples in a short time at low temperature.

The module is integrated with shocking and heating, which can be mixed with shock while heating, saving extraction time.

Equipped with ultraviolet disinfection lamp, HDPE high efficiency filter and safety door protection function, it can effectively prevent aerosol pollution.

SPECIFICATIONS

Model	LTNAP9-4
Nucleic Acid Extraction Method	Paramagnetic particle method
Sample Capacity	96-well
Sample Volume	20-1000 μl
Extraction Time	11min-60min
Magnetic Bead Recovery	≥98%
Magnetic Flux of Bar	≥4500Gs
Operating Temperature	RT-105℃
Shock Function	Yes
Temperature Accuracy	0.1℃
Sample Protection Function	Power on self-check, power off protection, high-temperature alarm, over-temperature protection
Disinfection Method	UV Light
Safety Door Design	The instrument is suspended when the safety door is opened
Operating System	Windows system
Scanning	Optional
Storage	>1000
Interface	USB interface
Package Size	940x710x910 mm
Gross Weight	110 kg
Power Supply	AC100-240V 50Hz/60Hz

LTNAP9-5 NUCLEIC ACID EXTRACTION SYSTEM

The instrument has a power-on self-test function to minimize the possibility of sample loss during the use of the instrument

Adopting a modular structure, the core components are all independently designed, with higher efficiency and lower failure rate, ensuring better stability during the operation of the instrument

Program visualization, precise control, simple operation, easy to use

According to user needs, the program can be freely edited

Suitable for a variety of nucleic acid methods based on biological nanomagnetic beads

Equipped with dual-channel HEPA filter system, easy to replace

Adopt large volume fan, strong ventilation

The operation area is reduced, and the experimental operation is fast

SPECIFICATIONS

Model	LTNAP9-5
Screen	10.1 inches touch screen
Sample Volume	Working volume:60-1000ul; adding sample volume:20-500ul
Sample Capacity	1-96
Magnetic Bead Recovery	≥98%
Extraction Time	Depending on the reagents
Extraction Hole Deviation	CV<3%
Heating Temperature	RT-120℃
Product Purity	DNA≥1.7-2.0; RNA≥1.8-2.1
Shaking Mode	Multi-gear adjustable
Reagent Type	Open System for Magnetic Bead Method
Program Storage	48 groups
Safety Door Design	Automatically suspend the program operation after the safety door is opened, and continue to run the program after the safety door is closed to avoid cross-contamination
Disinfection Method	UV light
Packing Size	910x670x780 mm
Gross Weight	86 kg
Power	500 W
Power Supply	100-240V 50/60Hz

LTNAP9 NUCLEIC ACID EXTRACTION SYSTEM

7-inch touch screen, easy to use, fast response
User-defined cracking and elution temperature
UV disinfection fuction, time range 1min-24hour
Automatic control system, no need connect to computer
Free programming to meet the needs of different reagent
Open system, fully automatic, stable results and good repeatability
Extract rapidly 9-40 minutes , 32/48 samples can be extracted at the same time

SPECIFICATIONS

Model	LTNAP9-6	LTNAP9-7
Sample Quantity	32	48
Processing Volume	60μL-1000μL	
Sample Volume	20-500 μL	
Sample Throughput	1-32	48
Magnetic Bead Recovery	>98%	
Extracting the Difference Between Holes	CV≤3%	
Heating Temperature	8 independent heating modules, customize lysis and elution temperature (temperature range) according to your needs	
Oscillating Mixing	Low,medium and high third gears are adjustable, and the fluctuation range can be adjusted with the reagent volume	
Reagent Type	Magnetic bead open platform	
Extraction Time	8-60 min/round (depending on the reagent used)	
Internal Program	48 groups	5000 groups
Program Management	Powerful program editing capabilities to meet different reagent needs. U disk program import and export can be achieved	
Safety Door Design	After the safety door is opened,the program operation will be automatically suspended, and the program can continue t run after the safety door closed	
Built-in Air Duct	Yes	
Ultraviolet Irradiation	Yes	
Packing Size	580x510x700 mm	700x520x750 mm
Gross Weight(kg)	51 kg	80 kg

LTNAP9-6


LTNAP9-7

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