DaAnGene

Decode Genetic Life. Assure Human Health.

Nucleic Acid Extraction Instrument

SMART 32

- High extraction rate
- High throughput
- High extraction quality
- Open system for various samples
- Standard and mature experimental process

PRM Medical

Clinical Diagnostic Solutions Advisory and Supplier

CFDA ISO ISO 13485 CE GMP Health Canada

http://en.daangene.com

Smart - 32 Nucleic Acid Extraction Instrument

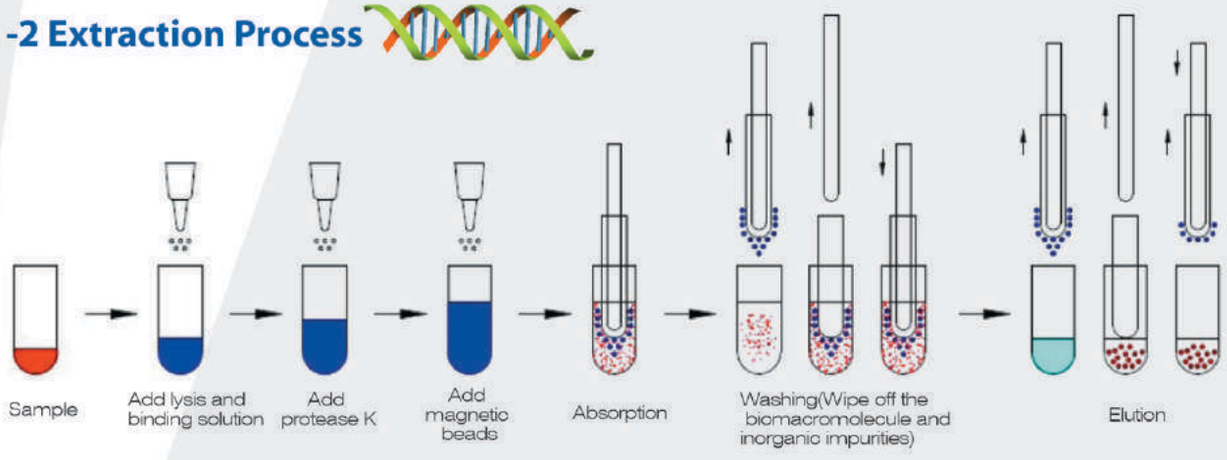
1. Introduction of Instrument

Smart - 32 Nucleic Acid Extraction Instrument is designed and manufactured by DaAn Gene. The extraction instrument owing the functions of temperature control, oscillation and blending, can crack sample and release the nucleic acid under the appropriate conditions, blend the magnetic beads with nucleic acid, elute and release the nucleic acid, transfer and separate the magnetic bead through magnetic device, at last extract the nucleic acid material from the samples. Instrument can extract a single sample or 32 samples at the same time, the user can edit experiment procedure, monitor experiment condition, open or close the ultraviolet light disinfection functions through the touch screen. It operates easily, extract rapidly, and has reliable result.

1-1 The Principle of Instrument

Through using the magnet stick on the lab chamber, transfer the magnetic beads adsorbed with nucleic acid into different reagents hole. Then use the stirring set to mix liquid rapidly and repeatedly, make the liquid and magnetic beads mix evenly. By cell lysis, nucleic acidadsorption, washing and elution, eventually get nucleic acid of high purity.

1-2 Extraction Process



2. Intended use

With the corresponding magnetic beads method and nucleic acid extracting reagent, this instrument can rapidly extract DNA and RNA from plant and animal tissue, fluid, blood,food and pathogenic microbes samples. The instrument is suitable for nucleic extraction and purification of biological samples.

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3.Basic Parameters

Reaction Volume	20 ul - 1000 ul
Sample Volume	≤ 600 ul
Sample Handling Capacity	1 - 32 samples
Extraction Plate	2 units of 96 extraction plates
The Collection Rate of Magnetic Beads	≥ 95%
Temperature Range	30°C- 90°C
Oscillation Speed for Mix	Fast, medium and slow speed for different requirement
Difference between Extracting Hole	For the extraction of the same sample, the variation coefficient of CT value between holes is less than 3%.
Operation Interface	Large screen for touching operation
Rapid Program Setting	8 sets of rapid program for setting. The extraction could be started after 2 clicks at least
Instrument Connector	RS232/RJ45/USB, etc.
UV	Yes
Extraction Time	30 - 60 minutes/time
Overall Dimension	435 mm*340 mm*450 mm
Weight	29 kg
Power Supply	AC 110-240 V, 50 Hz/60 Hz, 800VA
Operation Temperature Range	10 ℃～30 ℃
Operation Humidity Range	≤ 80%
Sensitivity of Nucleic Acid Extraction	For extraction of the 30IU/ml sample, the positive rate is more than 95%

4.Characteristic of the Instrument

- **Elegant Appearance**
  Compact, small and flexible structure. The situation of operation interface and extraction cabin could be easily observed through panoramic view design

- **Humanity Touch Screen for Operation**
  It's very easy to use with a large and full color screen for touch operation

- **Unique Design of Sampling**
  The extraction plate is designed like a drawer and user could handle the consumables freely, which avoids pollution and accident caused by the operation block

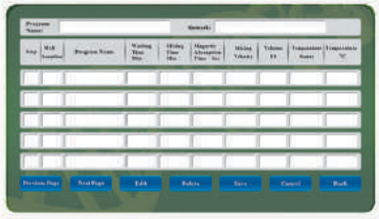


• Independent and Accurate Temperature Control

The temperature control is more accurate by improving the efficiency of heat conduction and the temperature uniformity of heated parts, according to the user-defined requirement. The independent dissociation and heating module in double-raw could conduct the sample repetitive lysis extraction and add multiple of sample volume, which greatly improve the sample extraction rate and satisfy the requirement of high sensitivity detection.

• Free Program Setting

Your application could be defined flexibly and efficiently with powerful program editing function, which can meet the demand of different reagents



• Rapid Extraction

Short operation time, 30 - 60 minutes/time, 32 samples could be extracted at the same time

• High Purity and High Yield

According to the purification and optimization scheme, the higher extraction efficiency and purity could be achieved with accurate incubate time. The DNA/RNA can be directly used in PCR and RT-PCR

• High Sensitivity

The precision mechanical movement and control reduce the residue of magnetic beads. The magnetic beads are mixed and transfered efficiently and collection rate is more than 95%

• Pollution control

The instrument can be disinfected regularly with functions of built-in disinfection. The pollution between holes and between batches could be strictly controlled by precise motion control, disposable consumables and self cleaning, which prevent cross contamination. The completely closed design with built-in UV disinfection can ensure the laboratory biosafety.

• Data output

It's convenient to output the data with various connectors like RS232、RJ45 and USB, etc.

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