

Application Fields

In molecular biology experiments, nucleic acid separation and purification is of vital importance. Tianlong GeneRotex Series full-automatic rotary nucleic acid extraction system can process 1 to 96 samples at the same time and can be widely used in the sample pre-treatment of areas such as disease prevention and control, animal epidemic control, clinical diagnosis, entry-exit inspection and quarantine, food and drug administration, forensic science, and teaching and scientific research.



Clinical Disease
Diagnosis



Forensic
Identification



Scientific
Research



Epidemic
Surveillance



Food Safety

An overall solution to molecular detection PCR laboratory:



» High-quality Services



Customer-oriented
service concept



Professional
technical support
team



Provide you with
worry-free
after-sales support
within 24 hours

Xi'an Tianlong Science and Technology Co., Ltd.
Address: No. 389, Zhuhong Road, National Economic and
Technological Development Zone, Xi'an City
Phone: +86-29-8221 8051
Fax: +86-29-8221 6680
Http:// www.medtl.com

Suzhou Tianlong Biotechnology Co., Ltd.
Address: 5th Floor, Building 7, Northwest Area, Namicheng
City, No.99, Jinjihu Avenue, Suzhou Industrial Park
Phone: +86-512-6252 7726
Fax: +86-512-6295 6337
Http:// www.medtl.cn



The company reserves the right to change product designs and specifications. Printed in October 2018 (first edition)



GeneRotex

GeneRotex Series Full-automatic Rotary Nucleic Acid Extractor

A Big Hit to Market



High flux

Multi-module

Anti-pollution

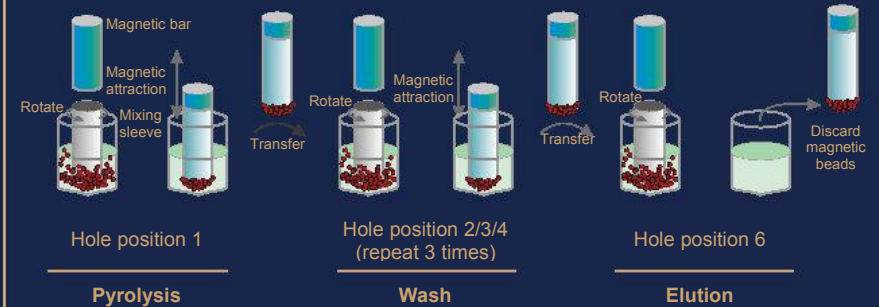
Ultra-silence

GeneRotex

The latest generation of Tianlong Technology products

Set the trend of the rotary nucleic acid extraction technology!

GeneRotex series full-automatic rotary nucleic acid extractor is the first to adopt the self-developed Rotary Mixing Technology (RMT) in China. That is, 360° rotation and mixing are rapidly conducted based on the up and down reciprocating motion at a slow speed. This technology can control the risk of cross-contamination caused by nucleic acid aerosols to a lower level and the noise generated during operation not exceeding 65dB. In addition, the design concepts of independent module as well as one machine and three types are also fully reflected in the series, and the needs of diverse downstream experimental testing can be met.



Technical Principles

CFDA Shaanxi Medical Devices
Record No.: 20180038

Flexible Operation Mode

Built-in 7-inch full color LCD screen, touch operation, one-button operation by scanning code.



Various Extraction Modules

96 Flux: Innovative 6*16 extraction module is supported by independently developed and produced 96-deep-well plates and single six-tubes, which overcomes the defects of the traditional extraction module including inflexibility and reagent waste while ensuring the high flux extraction. From then on, you can choose between 1 and 96 at will.

48 Flux: The large-scale extraction system of 1ml sample size is combined with the self-developed cone-bottom consumables, which makes the ultra-sensitive detection of infectious disease pathogens as low as 10IU/ml simple and easy.

24 Flux: The innovative 5ml large sample size and the maximum processing volume of 15ml are adopted to meet the requirements of various testing items such as prenatal DNA detection tumor targeting medication guidance.

Efficient Pollution Control

Rotate and Mix

In order to minimize the generation of aerosols, the self-developed RMT technology is first adopted. Compared with the traditional oscillating mixing technology, the amount of aerosol generated is substantially reduced by more than 50%. The risk of false positives caused by cross-contamination is controlled to a more effective extent, and the accuracy of experimental results is further guaranteed.



Negative Pressure HEPA

The instrument has a built-in replaceable High Efficiency Particulate Air (HEPA) and a negative-pressure air extraction device to ensure that the exhaust gases are free of biohazard.

UV disinfection

The instrument has a built-in UV lamp for the setting of flexible disinfection time.



Product Highlights

Ultra-silence Operation

Noise≤65dB

With the innovative rotary mixing technology and product design, the running noise is always controlled within 65dB.

Favorable Reagent Compatibility

As the fifth generation of full-automatic nucleic acid extractor of Tianlong Technology, GeneRotex96 inherits the classic 96-deep-well plate and the innovative single six-tubes and is compatible with Tianlong extraction kits of all varieties and specifications.



High Extraction Efficiency

The recovery rate of nucleic acid is ≥95%. The recovery rate of magnetic beads is ≥98%. The detection rates of 10IU/ml HBV and 30 IU/ml HCV are both ≥98%.

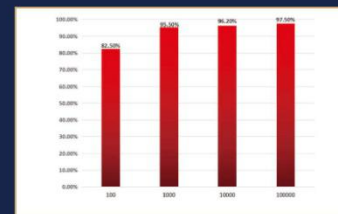


Figure 1: Nucleic acid recovery test (HBV nucleic acid sample concentrations are 10²IU/ml, 10³IU/ml, 10⁴IU/ml, and 10⁵ IU/ml, respectively)

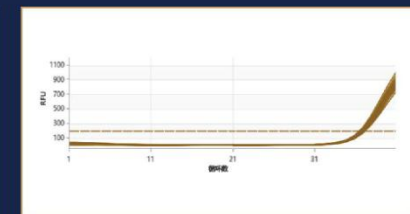


Figure 2: 30IU/ml HCV detection rate test (40/40)

Related Kits

Kit Name	Specification	Sample Information
Virus		
Viral RNA Extraction Kit	Pre-packaged: 64T/20T/20T (single)	Serum, plasma, swab lotion, environmental samples, virus cultures, etc.
Viral RNA/DNA Extraction Kit	Pre-packaged: 64T/40T/20T/20T (single) Non-pre-packaged: 50T	Serum, plasma, swab lotion, environmental samples, virus cultures, etc.
Nucleic Acid Extraction or Purification Reagent (Ex-RNA HCV)	Pre-packaged: 64T/20T/20T (single)	Serum, plasma, etc.
Nucleic Acid Extraction or Purification Reagent (Ex-DNA HCMV/EBV)	Pre-packaged: 64T/20T	EDTA anticoagulated peripheral blood
Nucleic Acid Extraction or Purification Reagent (Ex-DNA HPV)	Pre-packaged: 64T/20T/20T (single)	Cervical exfoliated cells
Bacteria/Fungus		
Bacterial Genomic DNA Extraction Kit	Pre-packaged: 64T/20T/20T (single) Non-prepackaged: 50T	Bacterial culture, sputum, swab lotion, blood, excrement, etc.
Nucleic Acid Extraction or Purification Reagent (Ex-DNA TB Mycobacterium Tuberculosis)	Pre-packaged: 64T/20T/20T (single)	Sputum
Fungal Genomic DNA Extraction Kit	Non-prepackaged: 50T/20T	Hyphae, colonies, etc.
Animal/Plant tissue		
Animal Tissue Genomic DNA Extraction Kit	Pre-packaged: 64T/20T Non-prepackaged: 50T	Liver, kidney, brain, tail, muscle tissue, etc.
Genomic DNA Extraction Kit for Animal-derived Deep Processing Products	Pre-packaged: 64T/20T/20T (single)	Fish meal, fish oil, meat sauce, animal feed, etc.
Plant Tissue Genomic DNA Extraction Kit	Pre-packaged: 64T Non-prepackaged: 50T	Leaves, roots, stems, seeds, flowers, etc.
Animal Tissue Total RNA Extraction Kit	Non-prepackaged: 64T/50T	Liver, kidney, brain, tail, muscle tissue, etc.
Plant Tissue Total RNA Extraction Kit	Non-prepackaged: 50T	Leaves, roots, stems, seeds, flowers, etc.
Precision Medicine		
Nucleic Acid Extraction or Purification Reagent (Ex-DNA whole blood genome)	Pre-packaged: 64T/40T/20T/20T (single) Non-pre-packaged: 50T	Anticoagulated peripheral blood
Whole Blood Total RNA Extraction Kit	Non-pre-packaged: 50T	Anticoagulated peripheral blood
Nucleic Acid Extraction or Purification Reagent (Ex-DNA dry blood spot genome)	Pre-packaged: 64T/40T/20T/20T (single)	Dry blood spot
Nucleic Acid Extraction or Purification Reagent (Ex-DNA FFPE genome)	Pre-packaged: 64T/20T/20T (single)	FFPE tissue or slice, etc.
Nucleic Acid Extraction or Purification Reagent (Ex-DNA serum/plasma free)	Pre-packaged: 20T/20T (single)	Serum, plasma, etc.
Nucleic Acid Extraction or Purification Reagent (Ex-DNA oral swab genome)	Pre-packaged: 64T/20T	Oral swab
Nucleic Acid Extraction or Purification Reagent (EX-DNA saliva genome)	Pre-packaged: 64T/20T	Saliva
Nucleic Acid Extraction or Purification Reagent (Ex-DNA amniotic fluid genome)	Pre-packaged: 64T/20T	Amniotic fluid
Nucleic Acid Extraction or Purification Reagent (Ex-DNA/RNA excrement)	Pre-packaged: 64T/20T/20T (single)	Excrement, anal swab, etc.
Scientific Research		
High Purity Plasmid DNA Extraction Kit	Pre-packaged: 64T/20T (single) Non-prepackaged: 50T	Bacterial suspension, colonies, etc.
Universal DNA Recovery Kit	Pre-packaged: 64T Non-pre-packaged: 50T	PCR amplification products, enzyme digestion products, gel blocks, etc.

Technical Specifications

Version No.	GeneRotex 96	GeneRotex 48	GeneRotex 24
Medical device registration certificate	Shaanxi Medical Devices Record No.: 20180038	Shaanxi Medical Devices Record No.: 20180038	Available soon
Sample flux	1 to 96	1 to 48	1 to 24
Processing volume	30 to 1000µl	50 to 3000µl	50 to 15000µl
Recommended sample amount	200µl	1000µl	5000µl
Applicable supplies	96-deep-well plate, customized single six-tubes	Customized 48-well deep well plate	Customized large volume single seven-tubes
Rotating speed	≤2000rpm	≤3000rpm	≤3000rpm
Temperature control range	Pyrolysis heating: Room temperature to 120°C Elution heating: Room temperature to 120°C		
Mixing mode	Rotate and mix		
Operating language	Built-in two operating languages: Chinese/English. Free to switch		
Operating mode	7-inch full color LCD touch or scan code gun control		
Program storage	Built-in mode program can store up to 10,000 programs		
Program management	Can flexibly create, edit and delete programs		
Two-dimensional laser scanning	Can be externally connected to scanner, automatically identify the application after scanning, make one-click operation		
Magnetic bead recovery	≥98%		
Difference between holes	CV≤1%		
Running noise	≤65 dB		
Pollution control	Negative pressure HEPA exhaust filter module with built-in UV disinfection module		
Instrument interface	USB interface		
Weight	40KG		
Dimensions	490*510*480mm		
Power Supply	AC110V to 240V, 50Hz/60Hz, 600W		
Temperature range	Between 10°C and 30°C		
Humidity range	≤85%		