



# Nucleic Acid Isolation System

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(EXM6000)



Molecular



## EXM6000

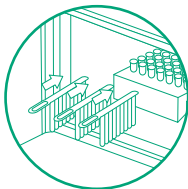
### Nucleic Acid Isolation System

Nucleic acid isolation system EXM6000 can be widely used in scientific research, clinical diagnosis, disease control and prevention, food safety detection, forensic science and other fields. With the matching reagents kit of Zymo, it can quickly extract nucleic acids from different samples such as whole blood, serum, plasma, throat swabs, secretions, exfoliated cells, urine, sputum, stool and FFPE tissue. The nucleic acid extraction of 96 samples can be completed in 12 minutes, which can significantly shorten the whole PCR detection time.



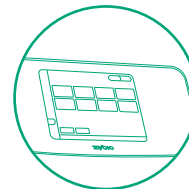
# Features

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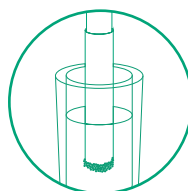
## Intelligent and Efficient

- Real-time view running state of the instrument with built-in LED lamp
- One key to clear errors



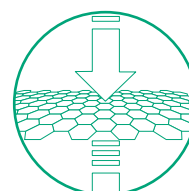
## Easy Operation

- Automatically load the magnetic sleeve
- 8.4 inch touch screen
- 5 preset programs for Virus, WB, FFPE, Bacteria, Stool extraction Kit
- Prefilled reagent kit to reduce the operation process and time



## Excellent Performance

- Magnetic flux is up to 5500 Gs, avoiding the risk of magnetic bead down
- The extraction program is editable and more 50,000 programs can be stored.
- Only 12 min for extraction of 96 samples

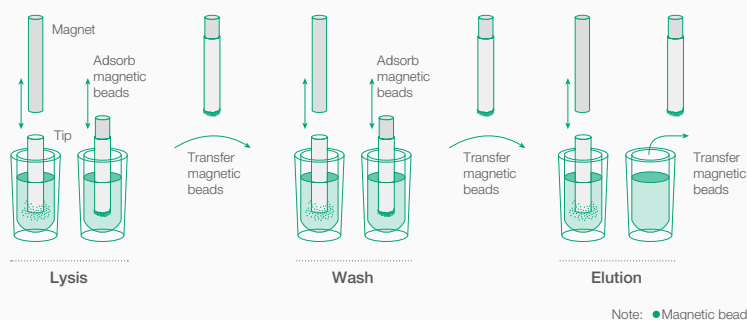


## Safety and Reliable

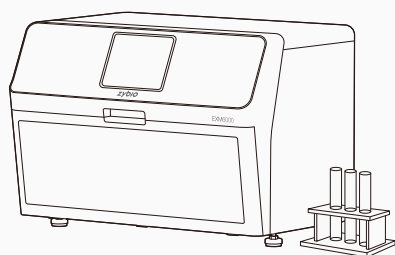
- Equipped with ventilation facilities and negative pressure exhaust function
- Equipped with HEPA filter and filter element to ensure the safety of operator
- Automatic UV sterilization reminder and shutdown

# Principle

The isolation system uses the magnet on the experiment cabin to transfer the magnetic beads adsorbed with nucleic acid to different reagent wells, quickly and repeatedly stir the liquid using the magnetic rod's tip to make the magnetic beads and liquid evenly mixed. After lysis, nucleic acid adsorption, magnetic beads transfer, wash and elution, high-purity nucleic acid products are finally obtained. The extracted and purified nucleic acid can be used in the following PCR amplification detection and construction of second generation sequencing library.

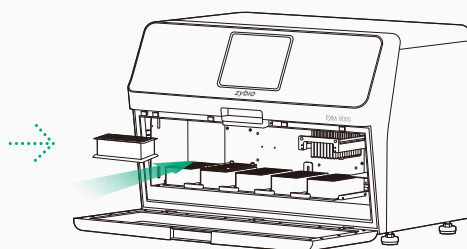


# Operation



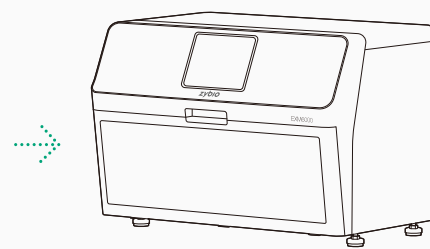
## Step1.

Confirm the extraction program to be used, number of samples and sample type



## Step2.

Add samples to the pre-filled reagents kit and then load it into the instrument

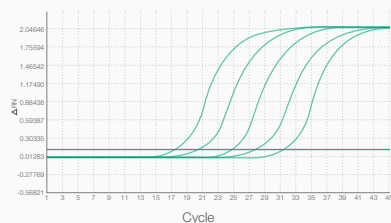


## Step3.

Run the extraction program

# Performance

## Linearity



Dilute HBV sample at a concentration of  $10^7$  IU/ ml 10 fold to the concentration of  $10^6$ ,  $10^5$ ,  $10^4$ ,  $10^3$  IU/ ml, and then analyze via qPCR after extraction, linearly dependent coefficient  $R^2=0.9999$

## Precision



Extract WHO reference (NIBSC code: 10/ 264) of HBV at a concentration of 500 IU/ mL 32 times repeatedly, and then analyze via qPCR,  $CV \leq 0.56\%$

## Sensitivity



Extract WHO reference (NIBSC code: 10/ 264) of HBV at a concentration of 10 IU/ mL 32 times repeatedly, and then analyze via qPCR, detection rate 20/ 20



## Technical parameters

Working principle	Magnetic bead method
Throughput	1-96
Process volume	50 $\mu$ L—1000 $\mu$ L
Number of magnetic rod	96
Recovery rate	$\geq 98\%$
Stability	$CV \leq 3\%$
Lysis temperature	RT~120°C
Elution temperature	RT~120°C
Mixing mode	Multi-mode and multi-speed adjustable
Operation interface	8.4 inch touch screen
Program storage capacity	$\geq 50000$
Program management	New, edit, save as, delete, support shortcut program
Connectivity	Standard USB, ethernet
Pollution control	UV sterilization
Exhaust way	By fan
Filtration	HEPA Filter
Data storage	Available, built-in SD card
Max. input power	500VA
Dimensions(W*D*H)	696mm*450mm*460mm
Weight	50kg

## Provide complete pre-treatment solution for molecular diagnosis

Reagent kit	Sample type	Subsequent use
Virus	Serum, plasma, urine, tissue fluid, swabs, secretion	qPCR, hybridization, sequencing
Bacteria	Serum, plasma, urine, tissue fluid, swabs, secretion, cell cultures, sputum, pleural effusion	qPCR, hybridization, sequencing
Whole blood	Whole blood	qPCR, hybridization, sequencing
FFPE	Paraffin section, frozen tissue section, fresh tissue	ARMS-PCR, qPCR, sequencing
Stool	Various solid or liquid stool samples	qPCR, hybridization, methylated PCR
Cell-free DNA*	Serum, plasma	qPCR, high-throughput sequencing, digital PCR

\* coming soon

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