

Nucleic Acid Isolation System

(EXM6000)



Molecular



scientific research, clinical diagnosis, disease control and prevention, food safety detection, forensic science and other fields. With the matching reagents kit of Zybio, 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



Intelligent and Efficient

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



Easy Operation

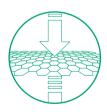
- Automatically load the magnetic sleeve
- 8.4 inch touch screen
- 5 preset programs for Virus, WB, FFPE, Bacteria, Stool extraction Kit
- Prefilled reagent kit to reduce the operation process and time





Excellent Performance

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

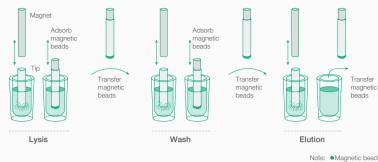


Safety and Reliable

- 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 next generation sequencing library.



Note. • Wagnetie Bead

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

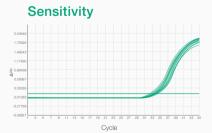
Performance

Linearity 2,0666 1.7566 1.7566 2.06686 0.00007 0.00007 0.000007 0.000007 0.000007 0.000007 0.000007 0.000007 0.000007 0.00007 0.00007 0.00007 0.00007 0.000007 0.000007 0.000007 0.000

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



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≤ 0.56%



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 | 20 μL—1000 μL |
| Number of magnetic rod | 96 |
| Recovery rate | ≥98% |
| Stability | CV≤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 | ≥ 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 |



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