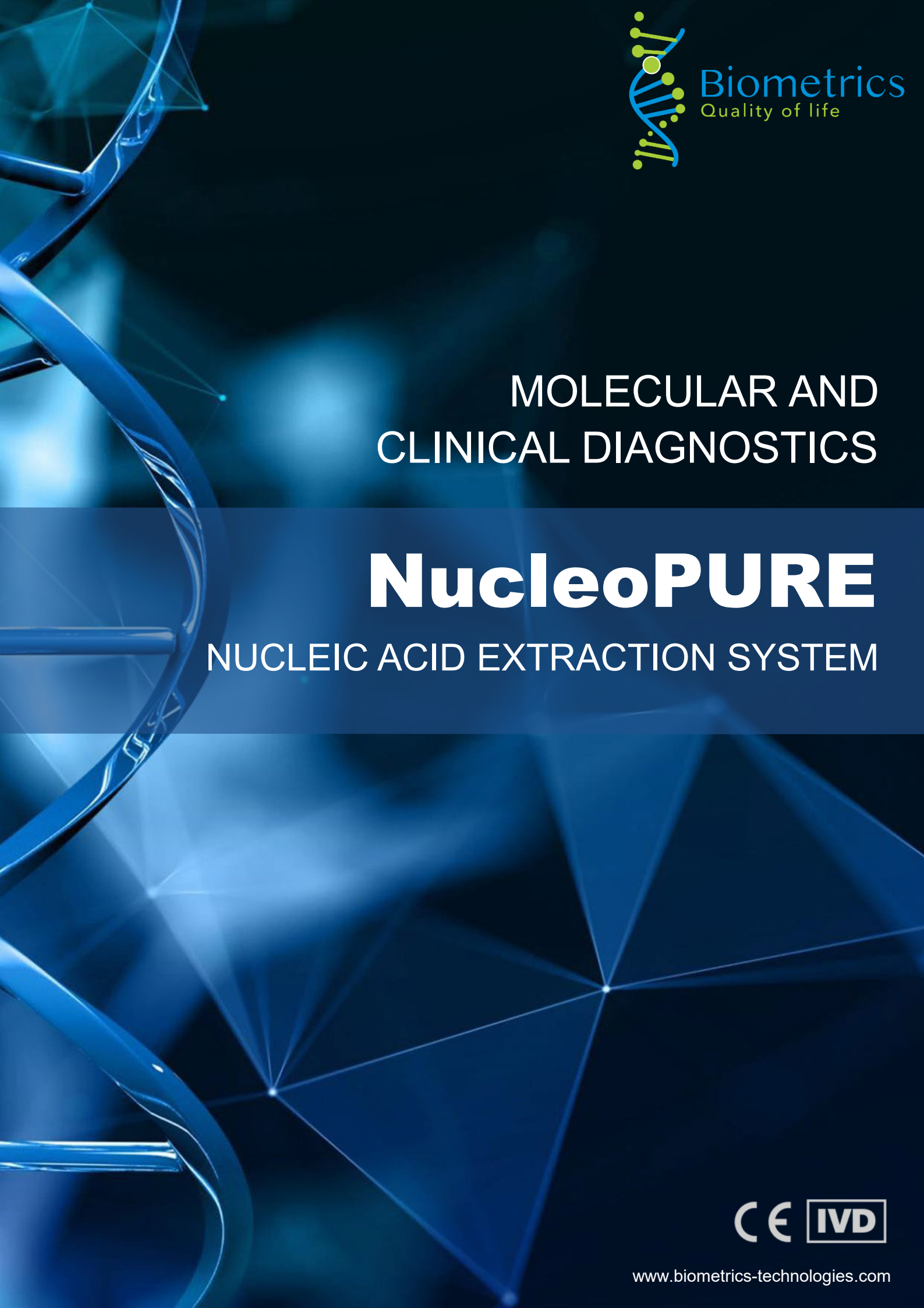

Biometrics
Quality of life
MOLECULAR AND
CLINICAL DIAGNOSTICS
NucleoPURE
NUCLEIC ACID EXTRACTION SYSTEM
CE IVD
www.biometrics-technologies.com

NucleoPURE Extraction System

Automated Nucleic Acid Extraction System

With the latest isolation method of nucleic acid transferred by magnetic rods and preloaded magnetic beads-based extraction reagent, The NucleoPURE Nucleic Acid Automatic Extraction System can process up to 96 samples and automatically isolate nucleic acids from various samples such as blood, cells, viruses, etc. The magnetic beads are adsorbed, transferred and released by the special magnetic rod, so as to realize the fully automated purification of nucleic acid.

Advanced Stirring Technology

Stirring speed up to 10HZ (10 times up and down in 1 second) enables effective mixing of samples with high viscosity (blood, feces, etc.).

Safe and Reliable

The operation will automatically suspend once the safety door opens, using a front-door sensor system, and will only resume after the safety door is shut, providing enhanced protection for users.

Self-Diagnostics

Auto checks before every run ensures that the sleeve, rod and well plate are positioned correctly thereby avoiding any errors due to omission or interference.

Multi Heating Modules

Multiple heating modules with individual heating controls ensures temperature accuracy for lysis and elution.

Stable and Efficient

Automated processing avoids discrepancies and errors caused by manual operations and increases the efficiency

Ease of Use

A 10-inch color touch screen and user-friendly interface lets you easily set purification parameters.

Contamination Control

Built-in UV disinfection lamp eliminates cross contamination

Compact & Light Weight

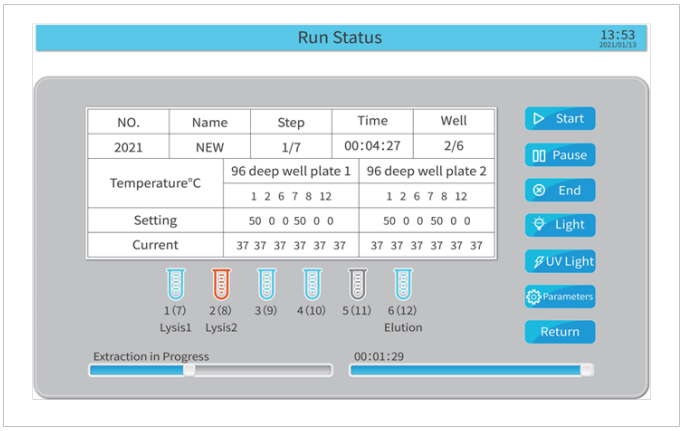
NucleoPURE 32 help to save your limited laboratory bench space

NucleoPURE 32/96 EXTRACTION SYSTEM

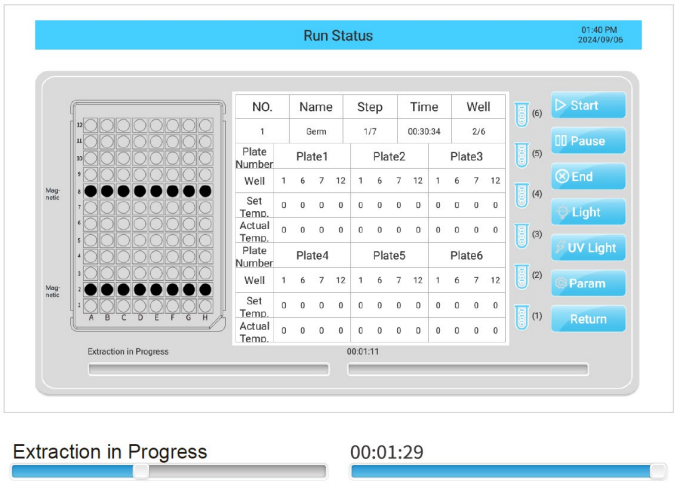
BUILT-IN SOFTWARE

Run Status Monitoring

The **Run Status** interface shows real-time extraction progress, active wells, temperatures, timers, with controls like **Start**, **Pause**, and **End** for user interaction.



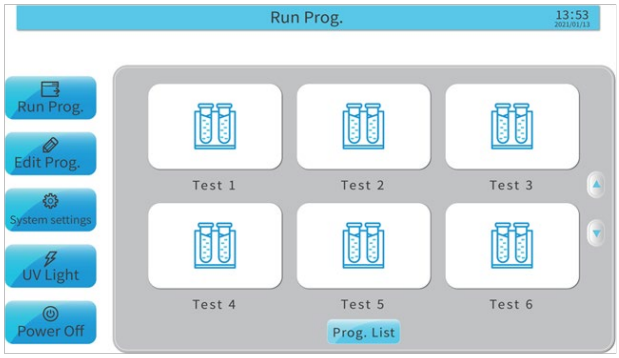
NucleoPURE 32

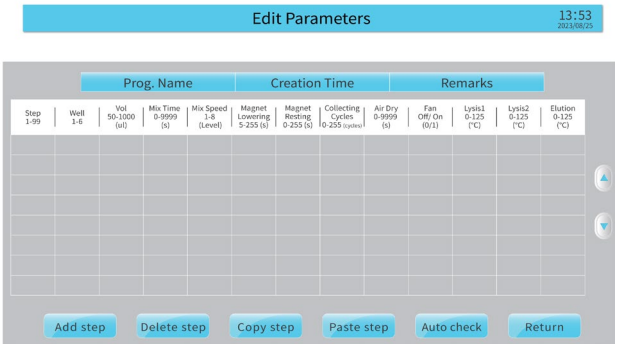


NucleoPURE 96

Personalized Shortcuts and Extensive Program Capacity

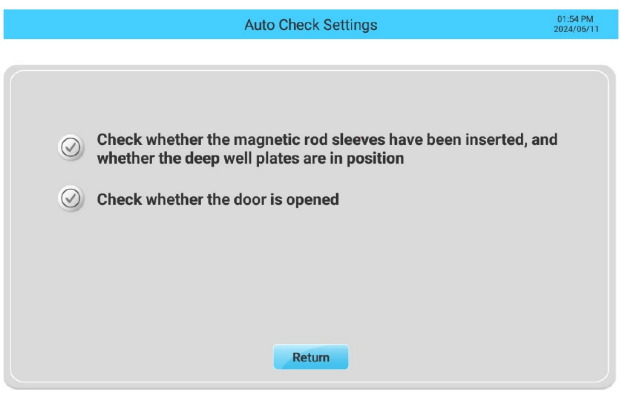
Enhance efficiency with the ability to create custom shortcuts directly on the screen for frequently used operations. Additionally, the system supports the creation and storage of over 500 extraction programs, providing unparalleled flexibility and convenience for diverse workflows.





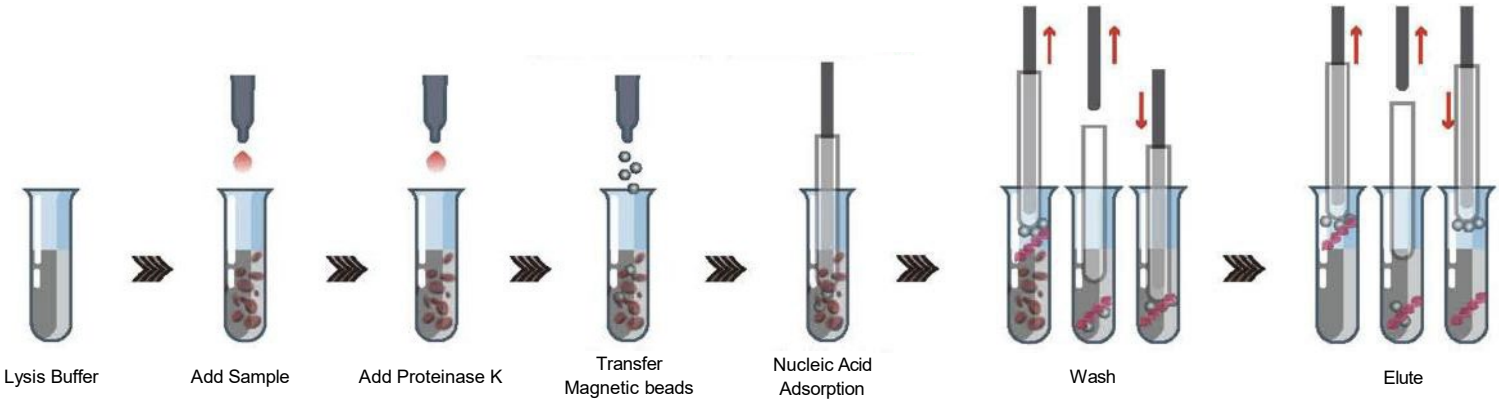
Smart Auto Check for Seamless Operation

With this automated check, you can confidently start your program, knowing everything is set up perfectly!



NucleoPURE Extraction System

Working Principle

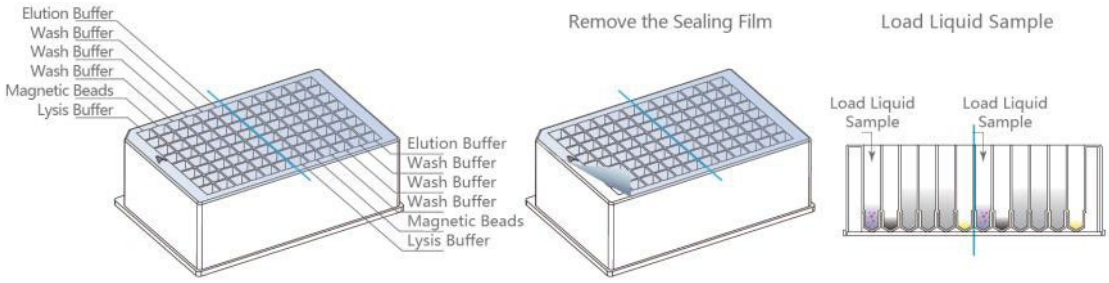


1. Sample
2. The sample are lysed in lysis buffer to release the nucleic buffer
3. Transfer the magnetic beads into lysis buffer blend fully and make the nucleic acids absorbed onto the specific coated material on the surface of the magnetic beads
4. Transfer the magnetic beads to the elution buffer and mix thoroughly, the nucleic acid falls off the surface of the magnetic beads and dissolves into the elution buffer.
5. Clean the surface of magnetic beads repeatedly, to remove unnecessary protein, salt or other impurities

NucleoPURE 32/96 EXTRACTION SYSTEM

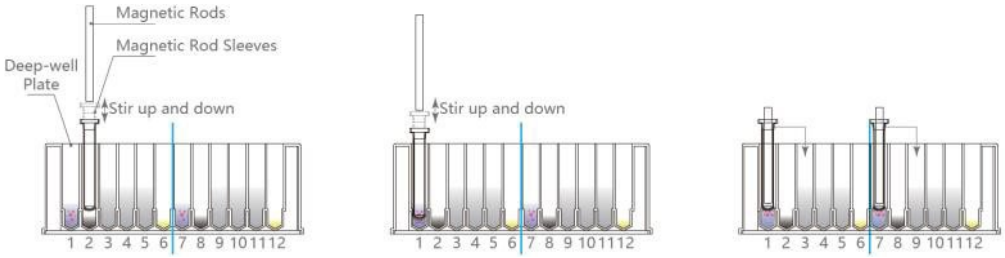
WORKING STEP

SAMPLE LOADING



LYSIS/NUCLEIC ACID BINDING

Lysis buffer solution promotes cell rupture and releases nucleic acids. Magnetic beads transferred from wells 2/8 to the lysis wells binds to the target nucleic acid molecules. The magnetic beads with the bound particles are then moved to the wells 3/9 for washing.



Collect and transfer magnetic beads to lysis buffer column

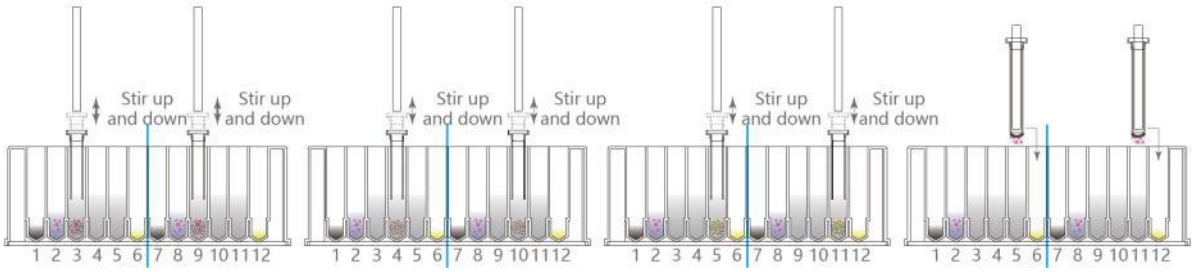
Sample lysis and binding of nucleic acids to magnetic beads

Transfer magnetic beads to wash buffer column

WASHING

Alcoholic wash buffers in the wash wells facilitate the removal of contaminants. Since the magnetic sleeves were soaked in alcohol during the wash stage, they need to 'air dry' above the wells so that the alcohol can volatilize before starting the elution stage

.



1st Wash

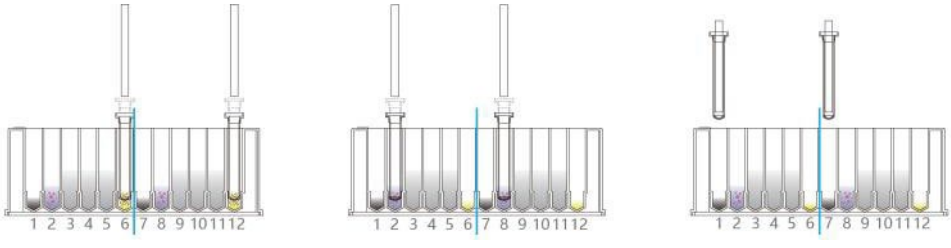
2nd Wash

3rd Wash

Dry and transfer magnetic beads to elution column

ELUTION

After ethanol is removed, the nucleic acid bound to the magnetic beads are mixed in elution buffer, releasing the nucleic acid.



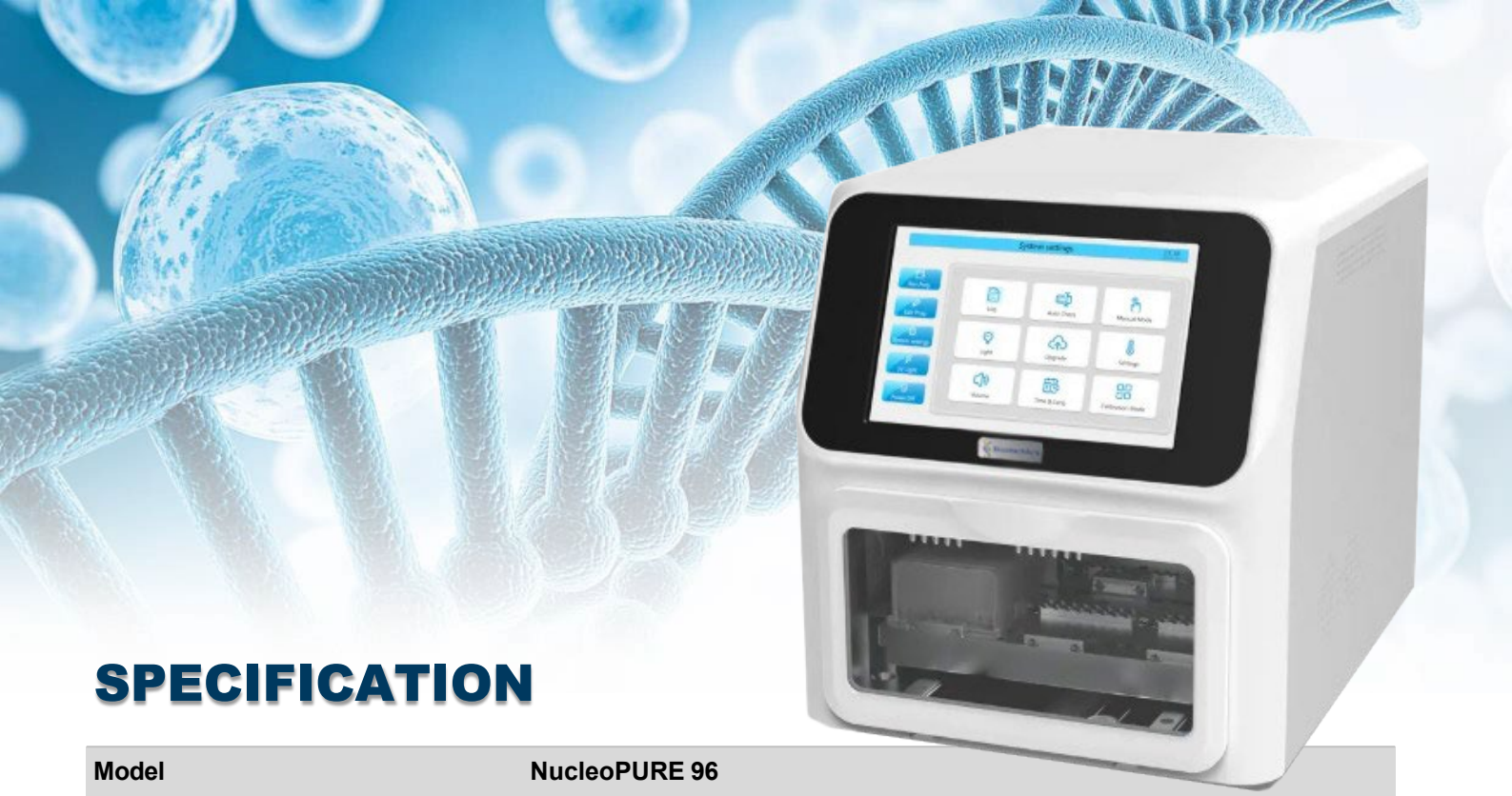
Elution

Magnetic beads recovered

Returned to initial position

SPECIFICATION

Model	NucleoPURE 32
Volume Capacity	50-1000 µL
Sample Quantity	1-32 samples
Plate Quantity	2 plates
Plate Type	96-well deep well plate
Processing Time	20-40 min/run (depending on reagent types and volumes)
Reagent Type	Magnetic bead-based open source reagent
Program Management	Create, Edit, and Delete options available
Magnetic Force	5000 gausses
Heating Temp.	Room temp. - 125°C
Shaking Mixing	Adjustable: 8 Levels
Max. Stirring Speed	10 Hz
Magnetic Bead Recovery Rate	≥96%
Inter-well Purification Variation	CV <3%
Working Noise	<55 dB
Exhaust	Fan
Data Storage Capacity	> 500 programs
Dimension	349 (W) x 325 (D) x 390 (H) mm
Display	10-inch color touch screen
Lighting	Yes
Contamination Control	UV light sterilization, Built-in HEPA filters (Option)
Power Supply	200-240 VAC, 100-120 VAC; 50/60 Hz
Weight	25 Kg
Extension Ports	2 USB port, 1 Ethernet port



SPECIFICATION

Model	NucleoPURE 96
Volume Capacity	50-1000 µL
Sample Quantity	1-96 samples
Plate Quantity	6 plates
Plate Type	96-well deep well plate
Processing Time	20-40 min/run (depending on reagent types and volumes)
Reagent Type	Magnetic bead-based open source reagent
Program management	Create, Edit, and Delete options available
Magnetic Force	5000 gausses
Heating Temp.	Room Temp. - 125°C
Shaking Mixing	Adjustable: 8 Levels
Max. Stirring Speed	10 Hz
Magnetic Bead Recovery Rate	≥96%
Inter-well Purification Variation	CV <5%
Working Noise	<55 dB
Exhaust	Fan
Data Storage Capacity	> 500 programs
Dimension	349 (W) x 460 (D) x 390 (H) mm
Display	10-inch color touch screen
Lighting	Yes
Contamination Control	UV light sterilization, Built-in HEPA filters (Option)
Power Supply	200-240 VAC, 100-120 VAC; 50/60 Hz
Weight	35 Kg
Extension Ports	2 USB port, 1 Ethernet port

Biometrics

Quality of life

Biometrics Technologies, Inc. (Headquarter)
1220 N. Market St. Suite 806, Wilmington,
DE 19801 USA
Email: info@biometrics-technologies.com
Website: www.biometrics-technologies.com

Biometrics Technologies Co., Ltd. (Taiwan)
15F-8, No. 99, Sec. 1, Xintai 5th Rd.,
Xizhi District, New Taipei City 221, Taiwan.
Email: sales@biometrics-technologies.com

Biometrics Technologies (Asia Pacific) Ltd.
(International & Asia Pacific Support Center)
18, 7th Fl. Sricharoenchai Bldg., Tiwanon Rd.,
Talat Khwan, Mueang, Nonthaburi 11000 Thailand.
Email: info@biometrics-technologies.com