



Your trustworthy support in
rapid molecular diagnosis

For lower throughput needs,
Singu20 is your answer



Experience the Singu20 -

precise yet innovative, the ultimate
solution for nucleic acid extraction.



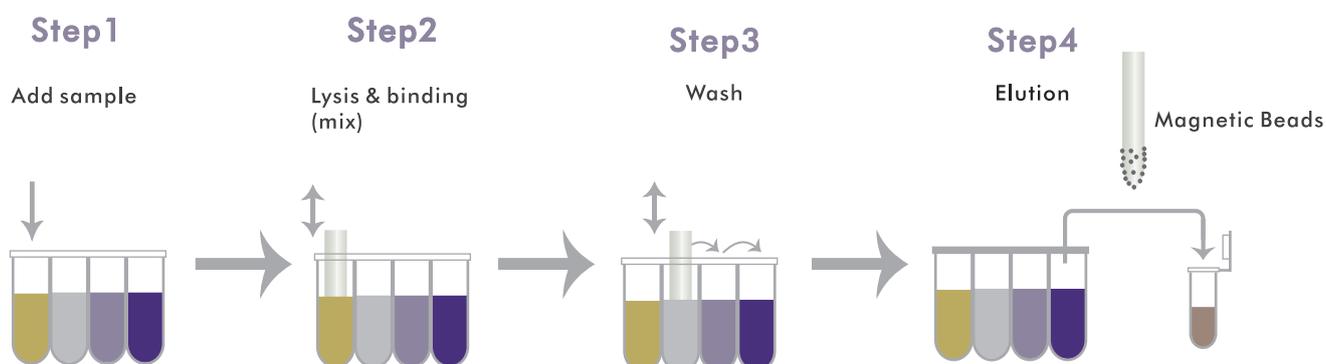
Introducing Singu20

the reliable and user-friendly nucleic acid extractor. With magnetic bead-based reagents and pre-programmed protocols, it offers efficient and contamination-free purification. Its 1-4 nozzle pipette head handles up to 4 samples per run, while pre-filled disposable reagents simplify loading. The built-in UV lamp facilitates easy decontamination. Simply select the program and press "START" for fully automated purification.



Technical Principle

the nucleic acid extraction and purification process involves four automated steps - lysis, binding, washing, and elution. After sample lysis, nucleic acid is specifically adsorbed by magnetic beads. The magnetic beads adsorbed with nucleic acid are then separated from the lysate/binding solution through a series of magnetic attraction, transfer, release, and mixing actions using magnetic rods. Non-specifically bound impurities are removed during the washing process, and the nucleic acid molecules are dissolved in the elution buffer. The resulting nucleic acid product is highly pure and can be used for further analysis such as PCR amplification detection and sequencing library construction.



Key Features



Intelligent: Sophisticated kit architecture simplifies handling

- Prefilled reagent for processing between 1 and 4 samples in parallel
- Sealed reagent simplify and speed up the process
- Manual work is limited to loading the sample tray
- Final step: Isolated nucleic acids transferred to elution cuvette with lid



Convenient: Intuitive operation with embedded system

- Stand-alone operation with integrated 4.3 inches touch screen
- Wizard feature guides beginners through the menu; experienced users have quick, direct access to pre-installed extraction protocols
- Approximately 19cm×24cm×25cm in size, easily fits in any biosafety cabinet, easily transported



Efficient: Fully automated nucleic acid extraction

- Universally applicable with a wide range of implemented extraction kits for isolating DNA and RNA
- Combined magnetic/heating unit offers flexible support for the automated process and collects the bound nucleic acids effectively
- Short turnaround time of **8-13 minutes** (reagent dependent)

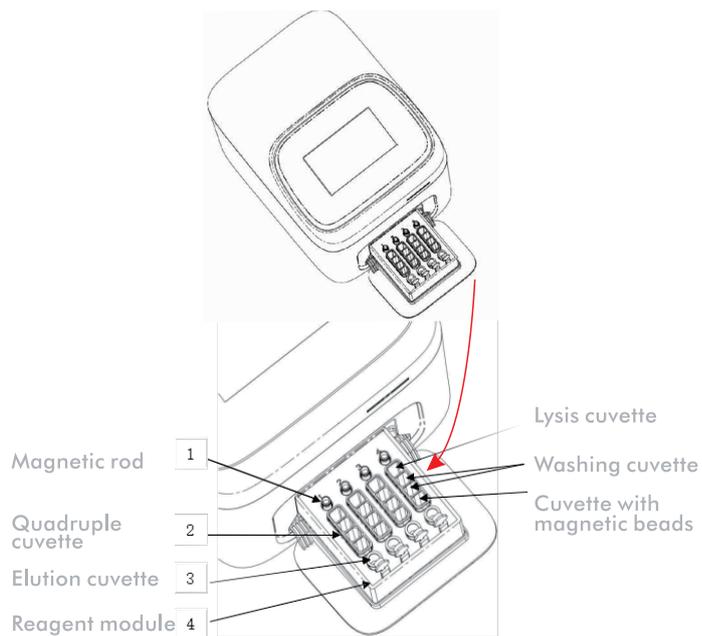
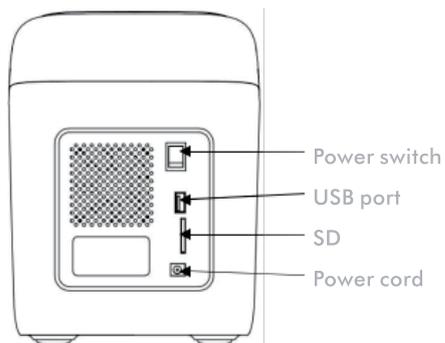
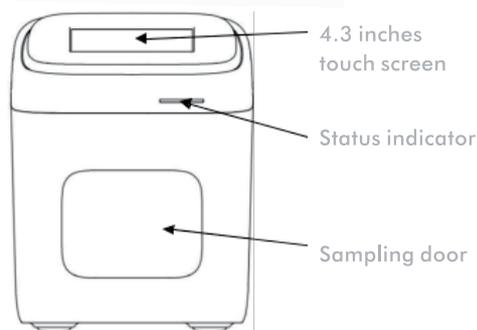


Reliable: Risk of cross-contamination eliminated

- A heating block increases sample lysis efficiency and therefore maximizes extraction yield and purity
- Ready-to-use reagent plastics minimize risk of contamination
- UV lamp provides a simple means of decontaminating the sample chamber



Singu20 Nucleic Acid Extractor Overview

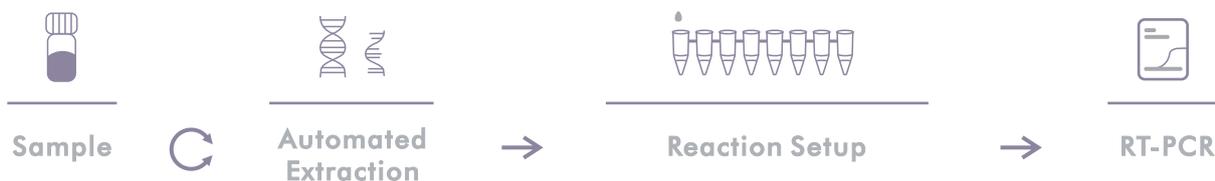


Specifications

Working Principle	Magnetic bead method
Throughput	1-4
Number of Magnetic Rod	4
Turnaround Time	8-13 minutes
Sample Type	Pharyngeal swabs, nasal swabs, oropharyngeal/oral secretions, nasal/nasopharyngeal secretions, serum, plasma, fresh or frozen whole blood, cervical exfoliated cells, sputum, feces, and animal samples, etc.
Sample Volume	50-500 μ l
Elution Volume	60-100 μ l
Repeatability	\leq 3%
Extraction Sensitivity	100 copies /mL
Detection Rate of Positive Sample	> 95%
Reagent	Prepacked TM-36 reagent
Operation Interface	4.3 inches touch screen
Pollution Control	Ultraviolet sterilization
Connectivity	Standard USB
Data Storage	Available, optional SD card
Max. Input Power	70VA
Dimensions(W*D*H)	190mm \times 244mm \times 252mm
Weight	4.7kg

One-Stop Platform

Provide complete extraction solution including instrument and kits for molecular diagnosis



Singu20

- Automated Nucleic Acid Extractor
- Automated extraction step
- Moving and processing magnetic particles
- Nucleic acid extraction from 1-4 samples in 8-13 mins.



Nucleic Acid Extraction Kit

- 36 tests/kit, pre-packed plate
- Compatible with Singu20 Nucleic Acid Extractor
- Good extraction stability and reproducibility
- Adapted to most downstream applications: PCR, RT-PCR, Sequencing, etc.



Applications



University and Corporate Laboratories
Nucleic acid extraction and protein purification from various samples



Food companies
Preparation of food samples for GMO or contamination testing



Public Health Offices
Sample preparation for public health threats such as STDs and tuberculosis



Hospital/Clinic Laboratories
Nucleic acid extraction from blood, tissue, sputum etc. for various molecular diagnostic tests



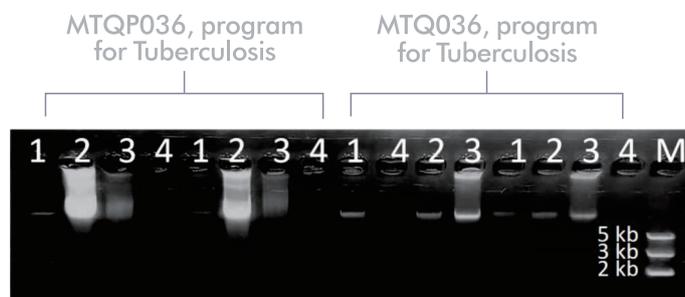
Military, Police
Sample preparation for bio-defense detection of various bacteria and viruses

TM-36 Series Nucleic Acid Extraction Reagent (Magnetic Bead Method)

Product Name	Ref No.	Sample Type	Program	Applicable Tests
General DNA/RNA Nucleic Acid Extraction Reagent	MTQ036	Nasal swab, alveolar lavage, bacterial fluid, transport medium, anal swab, pharyngeal swab, vaginal swab, cervical swab, tissue exudate	General DNA/RNA	Respiratory pathogen testing, COVID-19, MP, Legionella, Influenza A Virus, Influenza B Virus, Respiratory Syncytial Virus (RSV), Human Adenoviruses (HAdVs), Chlamydia Pneumoniae (CP) and H1N1 Influenza Virus, etc.
Whole Blood Genomic DNA/RNA Extraction Reagent	MTQB036	Fresh or frozen whole blood	Multi-Purpose	Human Genome Test, ig. Human MTHFR Gene Polymorphism
Bacterial DNA/RNA Extraction Reagent	MTQM036	Urine, feces	Multi-Purpose	Helicobacter pylori, intestinal flora, Norovirus, Adenovirus, etc.
Sputum DNA/RNA Extraction Reagent	MTQP036	Sputum	TB	Mycobacterium tuberculosis test
Advanced Nucleic Acid Extraction Reagent	MTQ036A	Saliva, human tissue	Multi-Purpose	HPV, HP, Mpox, CT, NG, UU, STD, PF, ZIKV, CHIKV, DENV, etc.
High-Sensitive Nucleic Acid Extraction Reagent	MTQ036HS	Serum, plasma	High-Sensitive	HBV, HCV, HIV
Veterinary Nucleic Acid Extraction Reagent	MTQ036V	Animal samples: Whole blood, serum, plasma, saliva, nasal fluid, urine, oral and nasal swabs, environmental gauze, fecal swabs, animal tissues, feed particles	Animal	Animal tests

Experimental Data

100µl whole blood nucleic acid using Singu20 and MTQB036



Test Method

1.Add the samples

- 1.1.Mix the samples well before use.
- 1.2.Tear off the aluminum film on the quadruple cuvette.
- 1.3.Add the samples into quadruple cuvette.

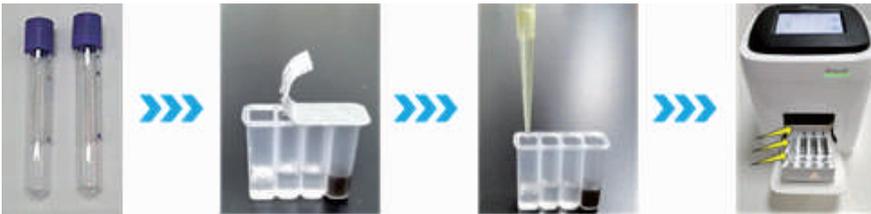
2.Nucleic acid extraction

- 2.1.Place the quadruple cuvette, elution cuvette and the magnetic rod into the extractor properly.
- 2.2.Switch on the extractor, select the appropriate program and run it.

3.Nucleic Acid Collection

Take out the elution cuvettes with the nucleic acid(DNA/RNA), you can directly use or transfer into DNase/RNase free tubes(self-provided) for storage.

Note: The products could be used for the following experiments immediately or store at -20℃ for 1-3 days. For a longer time storage, the products should be stored at -70℃ or lower temperature.



Your trustworthy support in rapid molecular diagnosis

SINGUWAY BIOTECH INC.

101, Building C, No.14 of East JIN XIU Rd, Xiuxin Community, Kengzi Street,Pingshan District,Shenzhen

Tel:+86-755-23704711

Fax:+86-755-23704711

