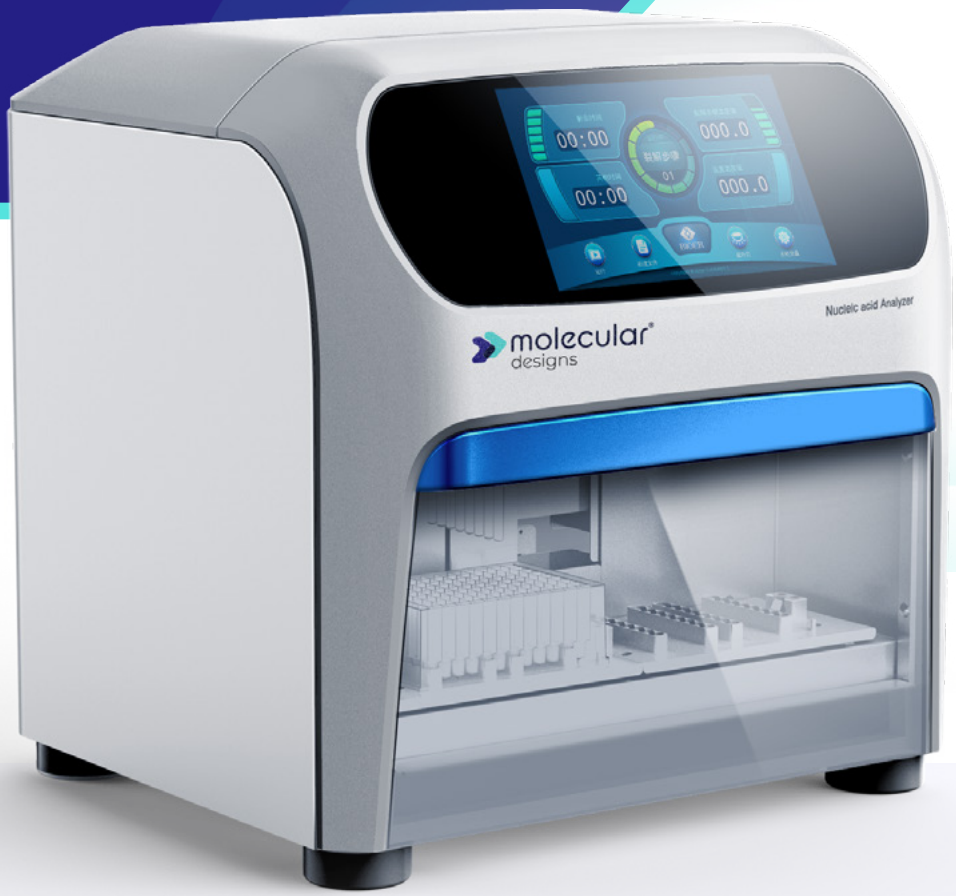
SIMPLICITY™ DX
EXTRACTION BROCHURE

Simplicity™ Dx Extraction

A Smarter Approach to Nucleic Acid Extraction



Modern laboratories are on the lookout for chances to enhance the efficiency, accuracy, and cost-effectiveness of their workflows. To the keen observer, **nucleic acid extraction is one area that is ripe for improvement**—traditional manual methods can be time-consuming, prone to variability, and introduce risks of cross-contamination.

Our ***Simplicity™* Dx Extraction** device streamlines and automates extraction using an innovative magnetic bead-based technology to remove manual steps, improve productivity, and ensure high-quality results.

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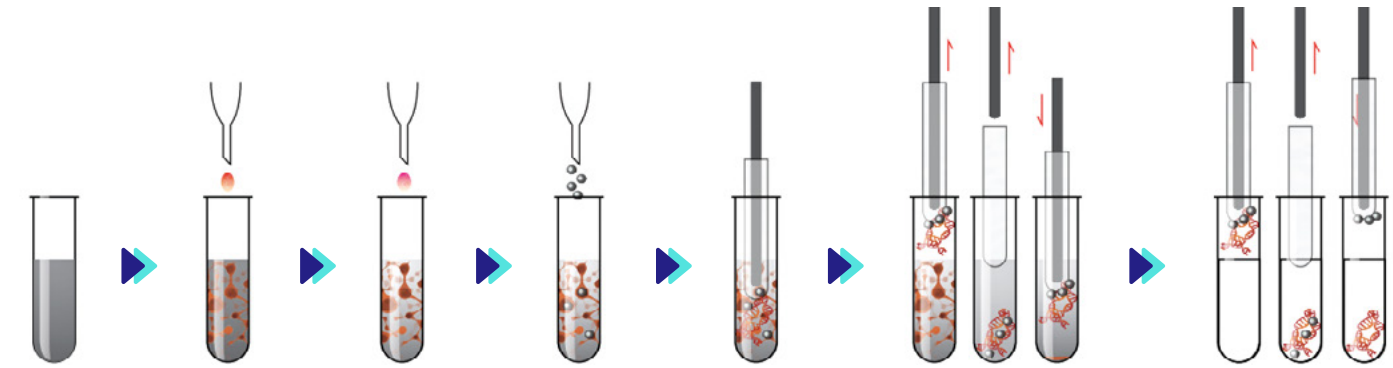
How Magnetic Bead-Based Extraction Works

Simplicity™ Dx Extraction



Sample	Cells are lysed and nucleic acid released in the lysis buffer.	Add magnetic beads into the buffer, fully mix the samples to bind nucleic acid with the specific coated substance on surface of magnetic beads.	Repeatedly wash the surface of magnetic beads to remove unwanted nucleic acid, protein and other saline impurities.	Transfer the magnetic beads to elution buffer, mix thoroughly to make the nucleic acid cast off from surface of magnetic beads.

Magnetic bead technology turns extraction into a one-stop process. After lysis and the introduction of magnetic beads, the device handles:

1. Separation:

A magnetic field isolates bound nucleic acids from the rest of the sample.

2. Purification:

Magnetic rods carry nucleic acids through washing and elution steps without the need for any manual handling.

3. Processing:

Handle from 1 to 32 samples simultaneously, with a full extraction process completed in approximately 30 minutes.

Automated steps allow you to minimize variability in technique, reduce hands-on time, and mitigate contamination risk.

Key Features & Benefits

Simplicity™ Dx Extraction

Efficiency & Throughput

- Pre-filled reagent cartridges minimizing hands on time and increase reproducibility
- Automate time-consuming steps and reduce manual workload.
- Individual cartridges and plate based reagents which allow the flexibility of running 1 to 32 samples at a time to improve your extraction throughput and workflow.
- Finish your extractions in approximately 30 minutes.

Reliability & Quality

- Pre-filled reagent cartridges and plates increase reproducibility
- Magnetic rods and disposable tips leave zero residue or sample attachment.
- Deep-well heating system minimizes temperature variability across tubes.
- UV sterilization between runs further lowers contamination risk.

Cost-Effectiveness

- Estimated cost is $2.50–$3.15 per sample, plus approximately $0.06 per sample for tip combs (all other consumables included).
- Frees up skilled personnel to focus on higher-value tasks.
- Reduce the need for costly repeat extractions due to inconsistencies.

User-Friendly Operation

- An intuitive touchscreen interface simplifies protocol execution.
- Pre-program your protocols for workflows you commonly run.
- Lightweight and easy to integrate into your existing workflows.

Technical Specifications

Simplicity™ Dx Extraction

PRODUCT NAME
SimplicityTM Dx Extraction

PRODUCT MODEL
EQP-ETR-MD32

SAMPLE THROUGHPUT
1-32 samples

PROCESSING VOLUME
300μL

MAGNETIC BEAD COLLECTION EFFICIENCY
>98%

RANGE FOR SIZE OF MAGNETIC BEADS
0.2~1.0μm

SHAKING MODE
Up-Down Shaking

HEATING TEMPERATURE RANGE
Room Temperature +5°C~120°C

ENVIRONMENT TEMPERATURE RANGE
10~30°C

CONSUMABLES
Pre-filled 96 Deep Well Plates, Prefilled Tube Strips, 8-Strip Tip Covers.

ENVIRONMENT HUMIDITY RANGE
20%-70% without condensation

STERILIZATION METHOD
UV lamp

REAGENT TYPE
Magnetic bead kits

INTERFACE
8-inch built-in touch screen

BARCODE SCANNING
Optional

DATA EXPORT
USB

INPUT POWER
AC 100-240V, 50Hz/60Hz, 500W

SIZE (L×W×H)
16.9in × 15.6in × 17.1in

NET WEIGHT
71.7lbs

Discover the Future of Lab Efficiency

At Molecular Designs, our guiding ethos is to make lab processes faster, easier to execute, and more reliable. Our ***Simplicity™* Dx Extraction** device applies these principles to offer your lab a tactical approach for improving your nucleic acid extraction workflows. Let our system help you automate key steps and reduce the risks associated with manual extraction.