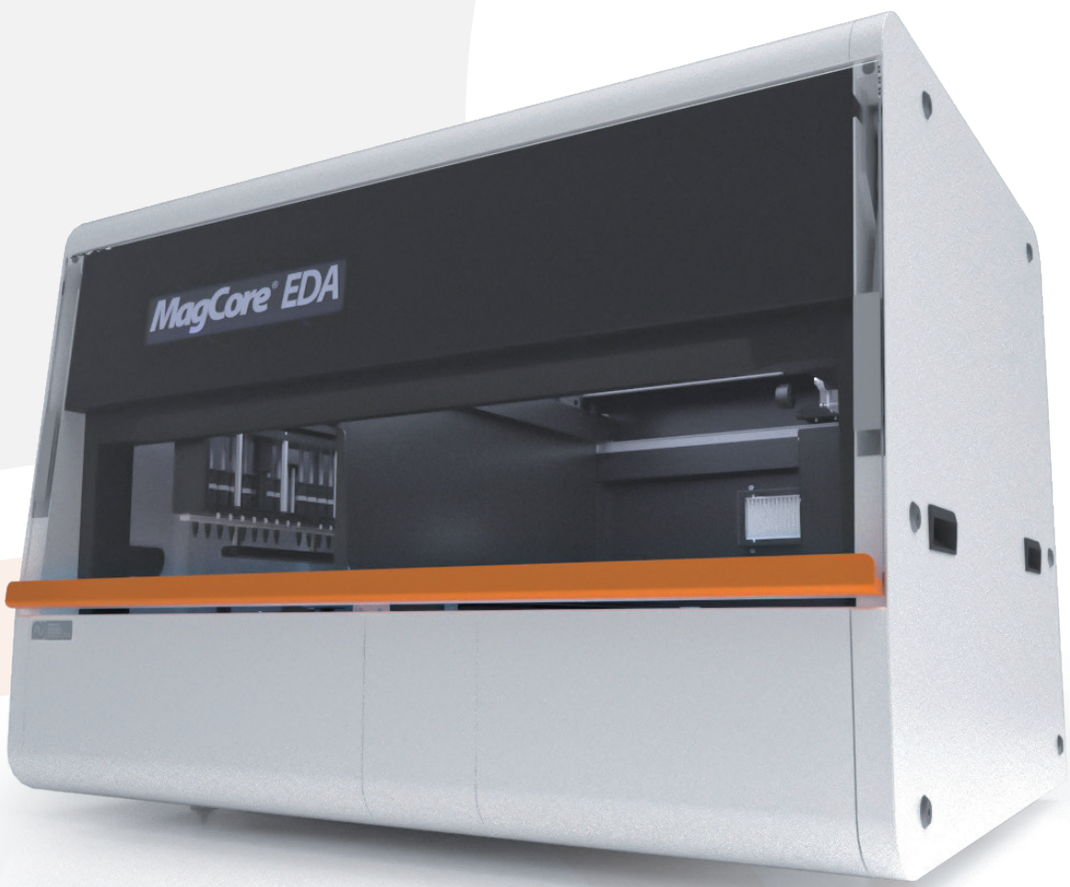
RBCBioscience

MagCore® EDA



Automated Premium DNA/RNA Extraction & Smart PCR Setup Solution

AUTOMATED NUCLEIC ACID EXTRACTOR

- 1-16 Samples
- 1-24 Samples
- 1-48 Samples
- Spectrophotometer
- Touch Screen
- UV Decontamination
- Barcode Scanner
- Thermo Printer
- Built-in Programs
- USB Output
- Progress Monitoring
- LIMS
- HEPA Decontamination
- PCR set up
- PC Operation Interface

MagCore® Plus II

Process Monitoring through your Smartphone

Standard: 16 Sample, Touch Screen, UV, Barcode Scanner, USB Output, Progress Monitoring, LIMS

MagCore® Super

Spectrophotometer Built-in

Standard: 16 Sample, Spectrophotometer, Touch Screen, UV, USB Output, Built-in Programs, Barcode Scanner, Thermo Printer

MagCore® EDA

NA Extraction & PCR Set-up

Standard: 24 Sample, 48 Sample, Spectrophotometer, UV, Barcode Scanner, USB Output, Built-in Programs, LIMS, HEPA Decontamination, PCR set up, PC Operation Interface

AUTOMATED NUCLEIC ACID KITS

NGS *PCR Product*

Genomic DNA *Whole Blood, Buffy Coat, Plasma/Serum, Cell-free body fluids, Free circulating DNA, Amniotic Fluid, Cultured Cells, Animal Tissue, Plant Tissue, Bacteria/Sputum, Swab, FFPE, Stool, Forensic Specimens*

Viral Nucleic Acids *Plasma/Serum, Cell-free body fluids, Urine, Swab*

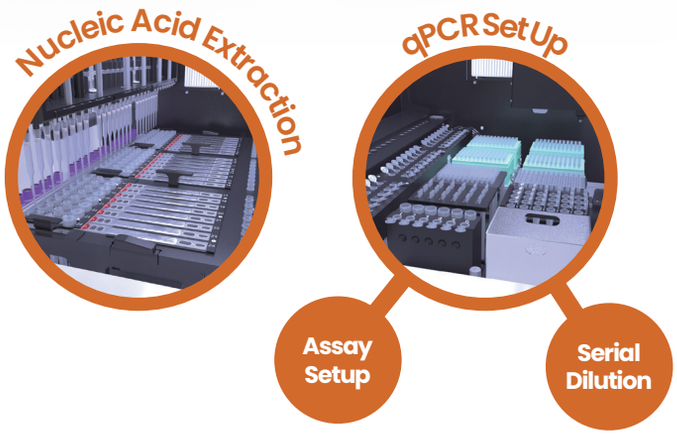
Total RNA *Whole Blood, Plasma/Serum, Cell-free body fluids, Cultured Cells, Animal Tissue, Plant Tissue*

MagCore® EDA

Automatic Extraction and Smart PCR Setup

MagCore® EDA system is new generation instrument for nucleic acid extraction and PCR setup pre-treatment. MagCore® EDA can process up to 48 samples and a built-in spectrophotometer which makes it a complete solution to increase laboratory efficiency and simplify the workflow. Users can benefit from automatic purification, OD values retrieval, high NA concentration in final elute and compatibility with LIMS. Using MagCore extraction kits, MagCore® EDA offers consistent, reliable DNA or RNA extraction in 30–120 minutes, depending on the sample type.

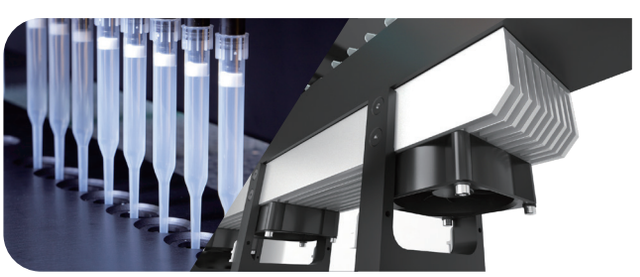
3 Modes Of Operation



Extract + Assay

PC USB Connection Interface

Built-in Thermoelectric Cooler



Extracted DNA/RNA
Can Be Temporarily Stored At 4~10°C

Worldwide Patented Magnetic Beads

Cellulose-coated magnetic beads, coupled with our patented binding and separation technology, guarantee high quality extracts.

UV Decontamination

The equipped UV lamp minimizes the risk of cross-contamination and ensures user and product safety.

HEPA Decontamination

HEPA system is installed in the PCR set up zone to eliminate contamination and ensure the purity of the samples.

Throughput up to 48 samples

From cartridge piercing to final elute, all steps are performed by the instrument, that allows running 1-48 samples. The instrument processed samples in batches of 24 at a time and has run setting for 24/48 sample to be processed at once, for time saving and flexible performance.

Ideal for both DNA/RNA extraction

Built-in protocols are created for extracting nucleic acids from a wide range of samples, including whole blood, plasma (circulating free nucleic acid), tissue, bacteria, virus, plant and forensic.

Automatic Optical Measurements of OD Values

Built-in spectrophotometer and our optical module provide users the option to automatically measure OD values and concentration of final eluates upon completion of the nucleic acid extraction process.

Automatic Barcode Scanning

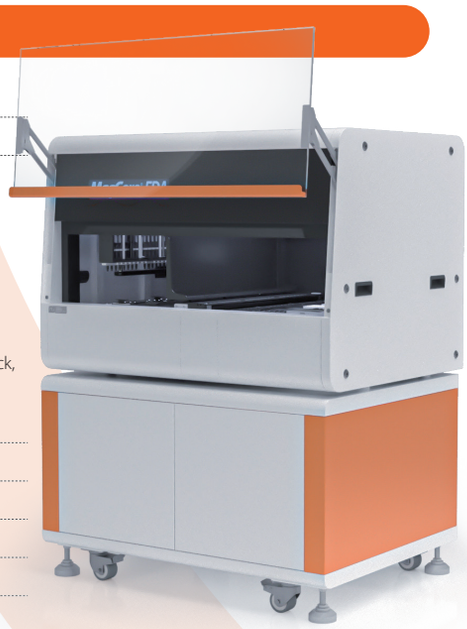
Barcode reading of primary tube simplifies the tracking of the samples and ensures traceability.

Smart PCR setup

The system has 10 SBS positions, the option of keeping premixes cool, the option of using 0.1- and 0.2-ml standard tubes, along with customized tubes from other PCR suppliers.

Specification

Model	EDA
System Method	Cellulose coated magnetic beads
System Components	1. Pipetting Unit: dispensing, transferring, 2 X-Y axis model 2. Electric Control: PLC model and Arm-based main board embedded in 3. UV Light: power 8W, life duration 11,000hrs 4. Contamination Prevention: HEPA filtration, Pipette tips with filter 5. Heating Block: RT-95℃ 6. Nucleic Acid Concentration Detection Source: D2 lamp 7. Wavelength Detection: 230nm, 260nm, 280nm 8. Liquid detection sensor : PCR setup Zone 9. Automatic Barcode Scanning: Primary tube 10. Accessories: T-rack, Cartridge racks, trash drawer, 96-well PCR plate rack, 32-well 1.5ml tube rack 11. Thermoelectric Cooler 4~10℃ 12. Stand (optional)
Power Supply	Voltage: AC 200-240V; Frequency: 50/60Hz
Dimension	W1240*D920*H830 (mm) / W48.81 x D36.22 x H32.67(inches)
Dimension (with stand)	W1240*D920*H1580 (mm) / W48.81 x D36.22 x H62.2(inches)
Net Weight	335 Kg / 739 lbs
Net Weight (with stand)	460 Kg / 1,014 lbs



Operating Parameters

Processing Capacity	1-48 samples (in batches of 24)
Processing Time	30-120minutes (depends on sample type)
Sample Volume	200/400/1200/4000 µl (application dependent)
Elution Volume	30/40/60/100/150/200 µl (application dependent)
Yield	200µl whole blood (average 6µg gDNA) 400µl whole blood (average 12µg gDNA)
Purity	DNA: O.D A260/A280 ratio 1.8±0.1 RNA: O.D A260/A280 ratio 2.0±0.2
Pipetting Accuracy	Extraction Zone: 40µl <5%; 60µl <2%; 100-900µl <1.5%
	PCR setup Zone: CV<1%, 5~50µl; CV<5%, 2~5µl; CV<10%, 1µl

Operating Environment

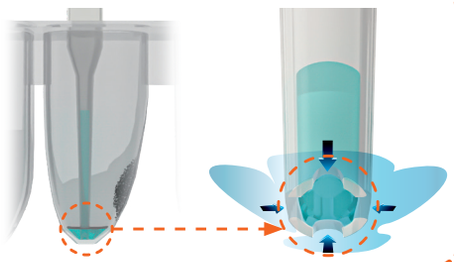
Temperatures allowed uring transportation, storage, and packaging	15℃-35℃
Temperatures allowed during operation	18℃ -30℃
Pollution Degree	Level 2

Cartridge Design & Extraction Principle

MagCore® cartridges include all reagents needed for purifications, no additional handling is necessary. We minimize any possible contamination and spillage with an automated piercing step for our pre-sealed cartridges.

Tip Design

The unique cross-notch design at the end of the tips allows the instrument to pipette precise volumes and minimize liquid retention.

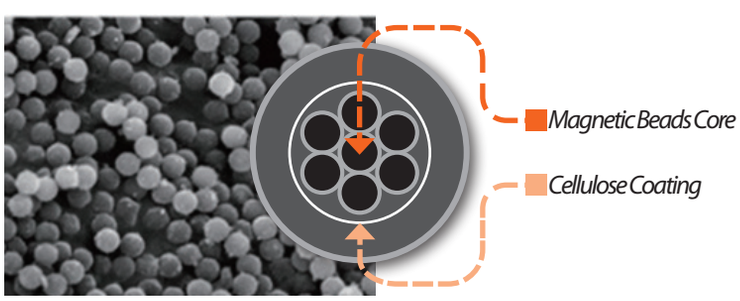


Extraction Principle

Sample Homogenate — Cell Lysis

Worldwide Patented Magnetic Beads

Our design: multiple core inside, cellulose coating.

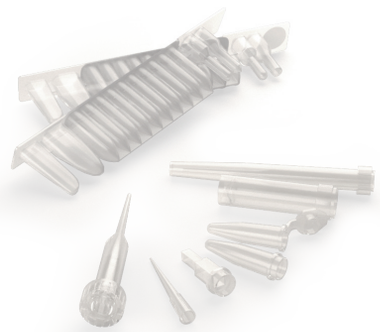


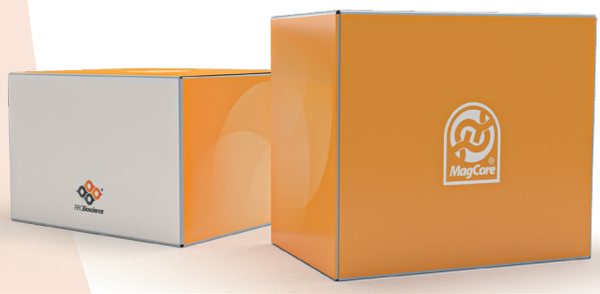
Particle range	~20µm (in water)
VSM	~40 emu/g
Cellulose w%	~50 %
Core size	~150 nm
Core VSM	~80 emu/g
Core material	Fe3O4
Bead Binding capacity	1 mg beads bind ~300µg Calf thymus DNA ~350µg human placenta DNA

Automated Nucleic Acid Kits

MagCore® Nucleic Acid Extraction Kits contain all reagents and consumables needed for 36, 72 or 96 nucleic acid isolation reactions. The consumables consist of reagent cartridges, individually packaged tip sets, sample tubes and elution tubes.

NGS	Genomic DNA	Viral Nucleic Acids	Total RNA
Clean Up & Size Selection	Whole Blood	Plasma/Serum	Micro RNA
	Free Circulating DNA	Cell-free body fluids	FFPE
	Cultured Cell	Urine	Cells
	Plant	Swab	Whole blood
	Tissue		Tissues
	FFPE		
	Forensic		
	Bacterial		





Genomic DNA

101
Genomic DNA Whole Blood Kit (Speedy installation)

102
Genomic DNA Whole Blood Kit

104
Genomic DNA Large Volume Whole Blood Kit (1.2 ml)

105
Plasma DNA Extraction Kit (1.2 ml)

115
Circulating DNA large volume kit (3-4 ml)

106
Genomic DNA Whole Blood Kit (For Genotyping)

110
Cultured Cells DNA Kit

301
Genomic DNA Plant Kit

401
Genomic DNA Tissue Kit

405
Genomic DNA FFPE One-Step Kit

406
Forensic DNA Direct Kit

502
Genomic DNA Bacterial Kit

504
Gut Microbiome DNA Kit

NGS

701
NGS Auto Size-Select purification Kit

Viral Nucleic Acids

202
Viral Nucleic Acid Extraction Kit (Low PCR Inhibition)

203
Viral nucleic acid extraction kit (high sensitivity)

220
Viral Nucleic Acid Large Volume Extraction Kit (2.4 ml) High Sensitivity

211
Viral Nucleic Acid Large Volume Extraction Kit (1.2 ml)

Total RNA

605
Total RNA FFPR One-step Kit

620
miRNA Extraction Kit

631
triXact RNA Kit

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MagCore®

MagCore® Automated Nucleic Acid Extractor

MagCore® Nucleic Acid Extraction Kits

ISO 13485:2016 Quality Management Systems CERTIFIED

MD 757696

CE-IVD certified (Instruments & Reagents) Manufactured in accordance with quality system requirements that comply with ISO 13485 standards and QMS

Ver. 1.0.2