

MagCore® Nucleic Acid Extraction Kits



MagCore® Automated Nucleic Acid Kits Selection Guide



	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Whole Blood	Buffy Coat	Plasma/Serum	Cell-free body fluids	Urine	Free circulating DNA	Cultured Cells	Animal Tissue	Plant Tissue	Bacterial/Sputum	Swab	FFPE	Stool	Forensic Specimens		
																			24 preps	36 preps
Genomic DNA	101 MagCore® Genomic DNA Whole Blood Kit (Speedy installation)	MGB400-01 MGB400-01SP		MGB400-02 MGB400-02SP	■	■														
	102 MagCore® Genomic DNA Whole Blood Kit		MGB400-03 MGB400-03SP		MGB400-04 MGB400-04SP	■	■													
	104 MagCore® Genomic DNA Large Volume Whole Blood Kit (1.2 ml)				MGB1200 MGB1200SP	■														
	105 MagCore® Plasma DNA Extraction Kit (1.2 ml)				MPD1200 MPD1200SP		■	■		■										
	115 MagCore® Plasma DNA Extraction Kit (4 ml)				Coming Soon		■	■		■										
	106 MagCore® Genomic DNA Whole Blood Kit (For Genotyping)		MGB400-07 MGB400-07SP		MGB400-08 MGB400-08SP	■														
	110 MagCore® Cultured Cells DNA Kit		MCC-01 MCC-01SP		MCC-02 MCC-02SP						■									
	301 MagCore® Genomic DNA Plant Kit		MGP-01 MGP-01SP		MGP-02 MGP-02SP								■							
	401 MagCore® Genomic DNA Tissue Kit		MGT-01 MGT-01SP		MGT-02 MGT-02SP							■			■	■	■	■	■	■
	405 MagCore® Genomic DNA FFPE One-Step Kit		MGF-01 MGF-01SP	MGF-03 MGF-03SP													■			
	406 MagCore® Forensic DNA Direct Kit			MFC-03SP												■				■
	502 MagCore® Genomic DNA Bacterial Kit		MBB-01 MBB-01SP		MBB-02 MBB-02SP										■					
Viral Nucleic Acids	201 MagCore® Viral Nucleic Acid Extraction Kit	MVN400-01 MVN400-01SP		MVN400-02 MVN400-02SP			■	■	■											
	202 MagCore® Viral Nucleic Acid Extraction Kit (Low PCR Inhibition)		MVN400-03 MVN400-03SP		MVN400-04 MVN400-04SP		■	■	■											
	210 MagCore® Viral Nucleic Acid Large Volume Extraction Kit (2.4 ml)				MVN2400		■	■	■											
	211 MagCore® Viral Nucleic Acid Large Volume Extraction Kit (1.2 ml)				MVN1200 MVN1200SP		■	■	■											
Total RNA	601 MagCore® Total RNA Whole Blood Kit		MRN-01 MRN-01SP		MRN-02 MRN-02SP	■														
	610 MagCore® Total RNA Cultured Cells Kit		MRC-01 MRC-01SP		MRC-02 MRC-02SP						■									
	631 MagCore® triXact RNA Kit	MRX-01 MRX-01SP		MRX-03 MRX-03SP		■					■	■								

MagCore® Cartridge Design and Extraction Principle

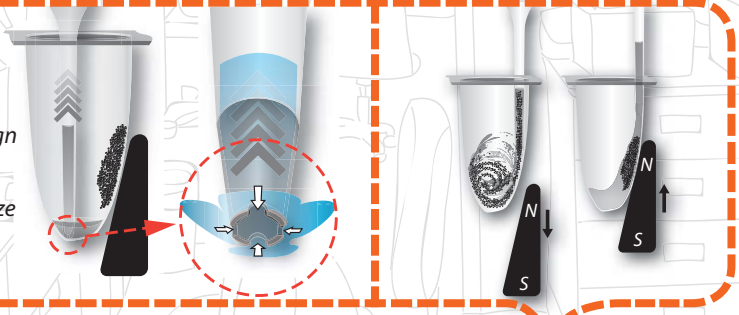


MagCore® cartridges include all reagents needed for purifications, no additional handling is necessary. We minimize any possible contamination and spillage with an automated piercing step for our pre-sealed cartridges. RBC patented Heating Well and Separation Well in the cartridge provide a strong circular force to ensure efficient binding and washing during the extraction procedure.

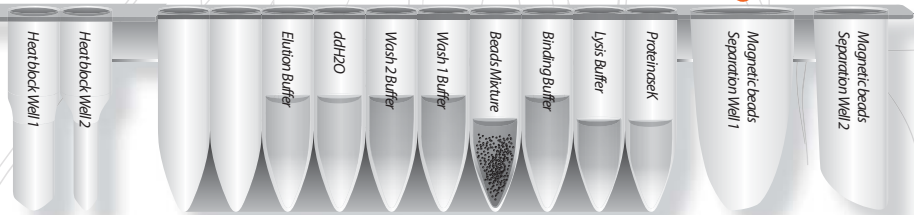
MagCore® Nucleic Acid Extraction Kits contain all reagents and consumables needed for 36, 72 or 96 nucleic acid isolation reactions. The consumables consist of reagent cartridges, individually packaged tip sets, sample tubes and elution tubes.

Tip Design

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

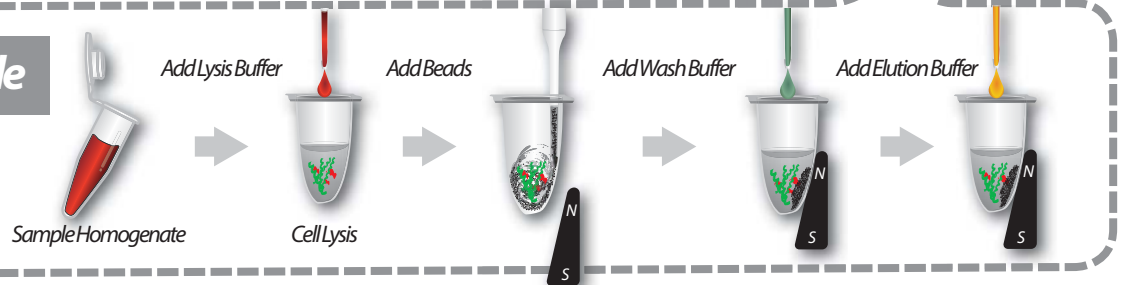


RBC Cartridge



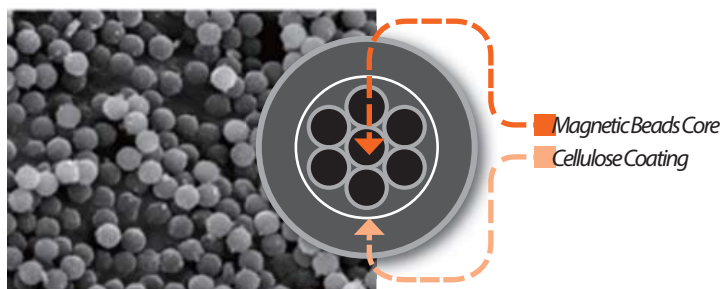
Each cartridge has 14 positions available with 10 sealed wells and 2 heating chambers.

Extraction Principle



MagCore® Worldwide Patented Magnetic Beads

Our design: multiple core inside, cellulose coating.



Particlerange	~20µm (in water)
VSM	~40emu/g
Cellulose%	~50%
Core size	~150nm
Core VSM	~80emu/g
Core material	Fe ₃ O ₄
Bead Binding capacity	1 mg beads bind ~300µg <i>Calthymus</i> DNA ~350µg human placenta DNA



MagCore® Nucleic Acid Extraction Kits



For extraction of total DNA from formalin-fixed paraffin-embedded (FFPE), tissue and forensic samples

MagCore® Genomic DNA FFPE One-Step Kit is designed for purification of total DNA from FFPE tissues by using MagCore® instruments. It features the method, One-Step Heating, to melt paraffin and lyse tissue samples at the same time without harmful reagents involved such as xylene. Two protocols are designed and optimized for different sizes of tissues: 2 hrs for small samples/ 16 hrs for large samples. DNA will be extracted fast and economically based on the cellulose coated magnetic bead technology.

401

MagCore® Genomic DNA Tissue Kit



405

MagCore® Genomic DNA FFPE One-Step Kit



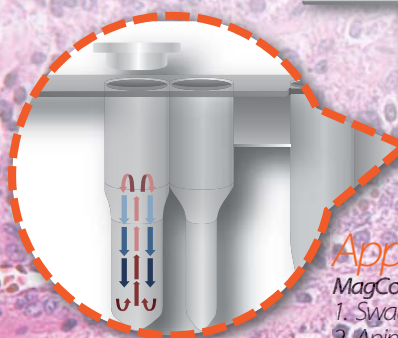
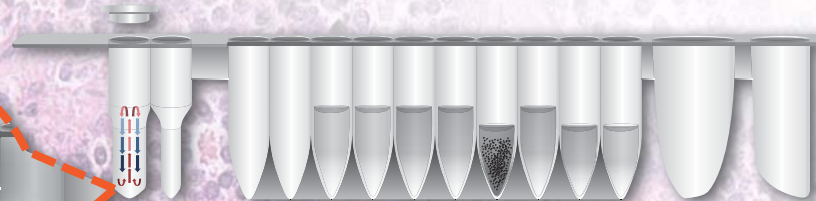
Features

1. MagCore® Genomic DNA Tissue Kit

- It is suitable for various sample types especially including forensic samples.
- High quality DNA ready to use for downstream applications

2. MagCore® Genomic DNA FFPE One-Step Kit

- A full package for DNA purified from FFPE samples. It starts from the step of neutralizing paraffin to the final DNA extraction.
- SULA oil (deparaffinization solution): no xylene involved
- Thermostable cap is specially designed to cover the reaction well for an optimal condition where lysis buffer and the FFPE sample can mix properly during the long processing period.
- The process to complete is within approximately 3 hours.



Applications

MagCore® Genomic DNA Tissue Kit is specific for the following samples:

1. Swab
2. Animal tissue
3. Stool
4. Feed-soil sample
5. Forensic sample



Performance

2-hr heating protocol works out

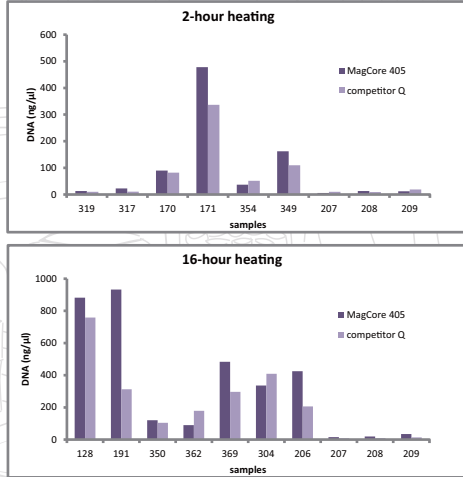
There are 2-hour heating and 16-hour heating protocols. It is suggested for a better performance that the 2-hour heating program is for small tissues and the 16-hour program is for large tissues.

Genomic DNA with high performance

The DNA extracted by MagCore® Genomic DNA FFPE One-Step Kit is high yield and suitable for downstream PCR and real-time PCR.

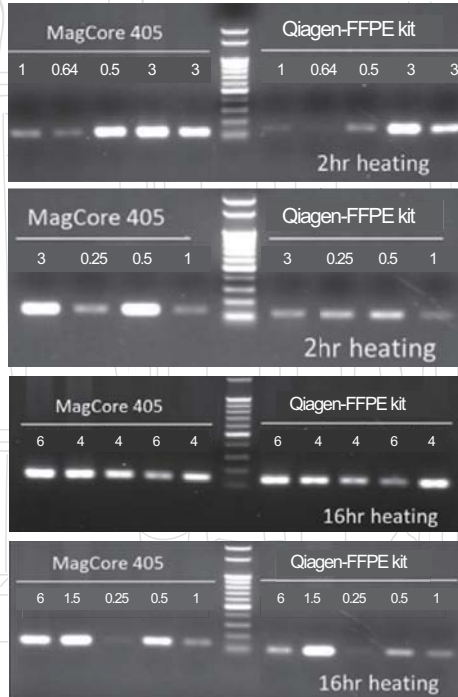
A. DNA concentration

Whether samples were treated with either a 2-hour or 16-hour heating, yields of DNA extracted by MagCore® are mostly higher than the yields of DNA extracted by the competitor.



B. The downstream PCR

PCR products of DNA purified by MagCore® and the competitor brand are confirmed by 1.5% agarose gel electrophoresis.

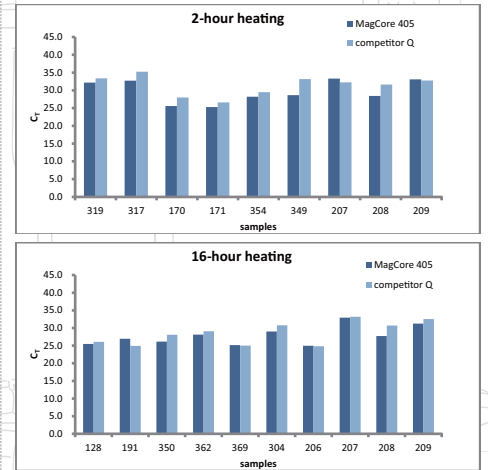


DNA yield gained from 10 mg of mice tissue samples and 0.25 cm tail

Sample ID	Yield (ng/ul)
Liver	17.5
Spleen	17.5
Brain	10
Lung	12.5
Kidney	32.5
Tail	7.5

C. Purified DNA ideal for the downstream real-time PCR

Whether samples experience a 2-hour or 16-hour heating, the CT values of samples processed by MagCore® are mostly lower than the CT values of samples processed by the competitor.



D. Tissue sample sizes

It is shown below that different sizes of tissue samples were processed by a 2-hour or 16-hour heating program.

2-hour heating			16-hour heating		
Sample	Size(cm ²)		Sample	Size(cm ²)	
1	319	1*1	1	128	2*3
2	317	0.8*0.8	2	191	2*2
3	170	0.5*1	3	350	2*2
4	171	1.5*1	4	362	2*3
5	354	1.5*2	5	369	2*2
6	349	1.5*2	6	304	2*3
7	207	0.5*0.5	7	206	1.5*1
8	208	0.5*1	8	207	0.5*0.5
9	209	0.5*1	9	208	0.5*1
			10	209	1*1

MagCore® Automated Nucleic Acid Kits Specification

Cartridge Code	MagCore® Super/HF16 Plus/Plus II			Running Time	MagCore® HF16/Compact/HF48			Running Time
	Cat.No.	Cat.No.	Cat.No.		Cat.No.	Cat.No.	Cat.No.	
	36 preps	72 preps	96 preps		36 preps	72 preps	96 preps	
401	MagCore® Genomic DNA Tissue Kit							
	For tissue and forensic samples (up to 40mg)							
	Contents: Pre-Filled Cartridges, Filter Column Sets, GT Buffer, Proteinase K, PK Storage Buffer, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes							
	Shelf life: 18 months							
	MGF-01SP	MGF-02SP	33 min (sample volume: 400 µl) <small>*optical detection is not provided</small>	MGF-01	MGF-02	33 min (sample volume: 400 µl)		
405	MagCore® Genomic DNA FFPE One-Step Kit							
	For FFPE tissue samples.							
	Contents: Thermostable Cap, Sula Oil, Pre-Filled Cartridges, Filter Column Sets, GT Buffer, Proteinase K, PK Storage Buffer, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes							
	Shelf life: 18 months							
	MGF-01SP	MGF-03SP	33 min (sample volume: 400 µl)	MGF-01	MGF-03	175 min (2-hour heating)-Standard 1012 min (16-hour heating)-High Yield		

Enzyme Selection Guide

Product	Contents	Cat.No.
Proteinase K Set	11 mg Proteinase K, 1.25 ml PK Storage Buffer	PK11
RNase A	50 µl RNase A (50mg/ml)	RN050
	130 µl RNase A (50mg/ml)	RN130



FDA (10055336) registered and CE-IVD certified (Instruments & Reagents)
Manufactured in accordance with quality system requirements that comply with ISO 13485 standards and QSR

