

MagCore® Nucleic Acid Extraction Kits



MagCore® Automated Nucleic Acid Kits Selection Guide



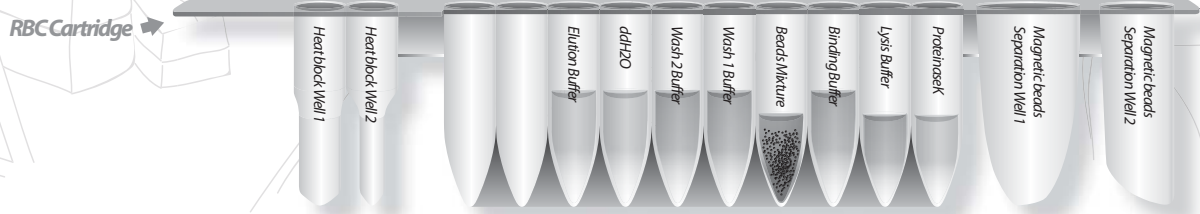
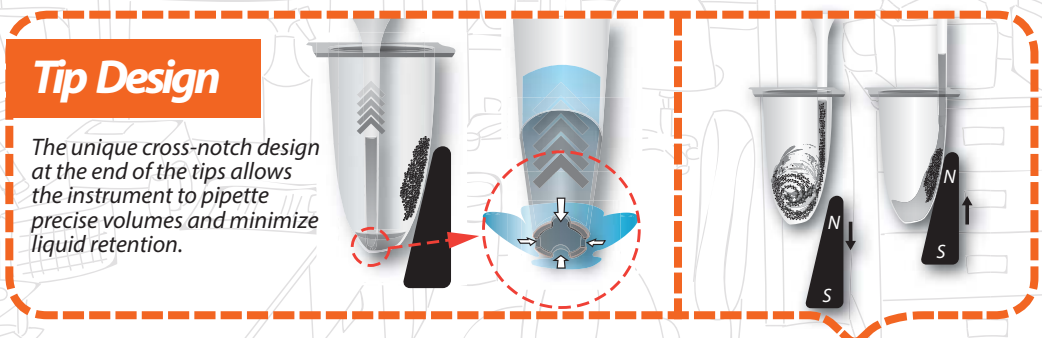
	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Whole Blood	Buffy Coat	Plasma/Serum	Cell-free body fluids	Urine	Free circulating DNA	Cultured Cells	Animal Tissue	Plant Tissue	Bacterial/Sputum	Swab	FFPE	Stool	Forensic Specimens		
																			24 preps	36 preps
Genomic DNA	101 MagCore® Genomic DNA Whole Blood Kit (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

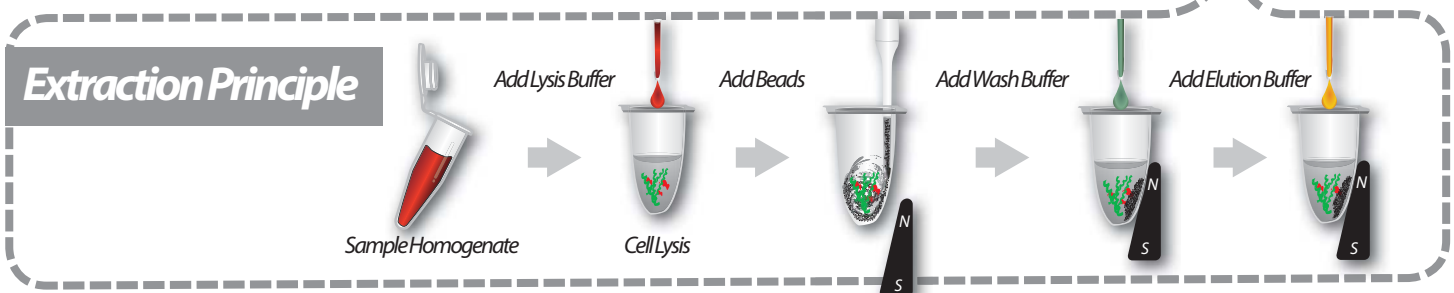


MagCore® cartridges include all reagents needed for purifications, no additional handling is necessary. We minimize any possible contamination and spillage with an automated piercing step for our pre-sealed cartridges. RBC patented Heating Well and Separation Well in the cartridge provide a strong circular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

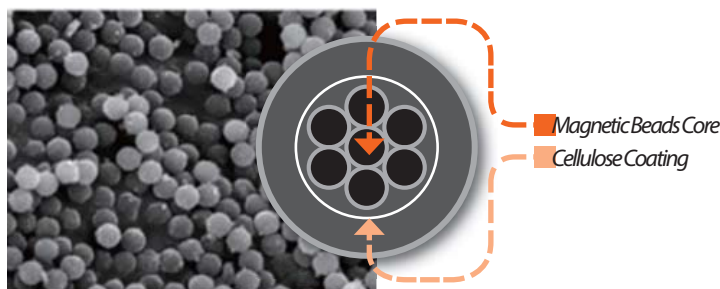


Each cartridge has 14 positions available with 10 sealed wells and 2 heating chambers.



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



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



MagCore® Nucleic Acid Extraction Kits

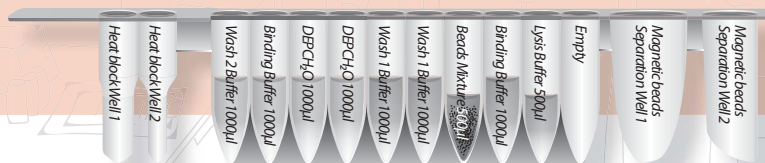
For total RNA extraction from cultured cells, whole blood and tissues

MagCore® triXact RNA Kit is specially designed for total RNA purification from the three most common sample types in diagnostics, research, and forensics: up to 1×10^6 cultured cells, a variety of tissues, or whole blood samples. The program provides optional DNase I treatment to remove residual DNA and extract high quality DNA-free RNA. Make use of its outstanding extraction performance, efficiency, plus easy-to-follow protocols to simplify your every day extraction!



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MagCore® triXact RNA Kit



Features

1. Excellent RNA Yield and Purity shown in both A_{260}/A_{280} ratio and RIN value
2. Highly efficient and user-friendly protocol with minimal pretreatment required
3. Capable of isolating RNA from 3 types of samples: Cells, Whole blood, Tissues
4. Optional DNase I treatment to remove residual DNA

Applications

Purified RNA ready to use in downstream applications such as:

1. PCR
2. Real-time PCR
3. Microarray target preparation
4. Northern blotting
5. NGS analysis

Performance

Total RNA from 1 x 10⁶ Hela Cell Extract

No.	Kit	nanodrop ng/ul	260/280	260/230
1	Brand Q	207.15	2.08	1.86
2		182.85	2.07	1.78
3		174.90	2.11	1.63
4	Brand Z	171.52	2.03	2.24
5		210.45	2.02	2.22
6		164.76	2.05	2.17
7	MagCore® triXact RNA Kit	264.69	2.04	2.11
8		250.61	2.02	2.17
9		237.44	2.03	2.17
10	Brand M	224.35	2.11	2.26
11		252.69	2.10	2.30
12		222.45	2.08	2.18

Table 1. Analysis of Cell RNA from MagCore® triXact Kit and others

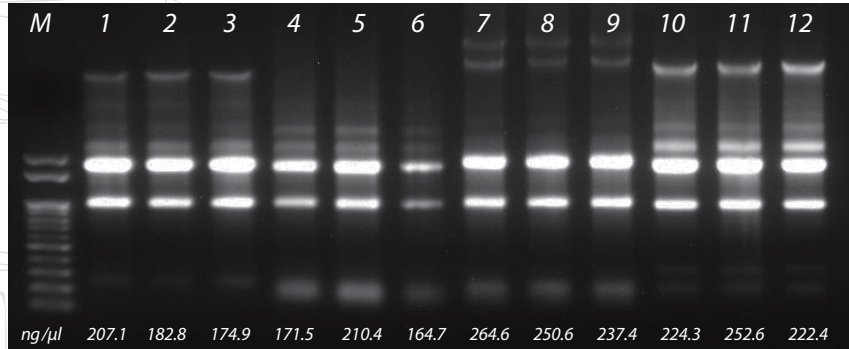


Fig 1. Gel Electrophoresis of RNA from 1 x 10⁶ Hela Cell Extract

Total RNA from 400µl Human Whole Blood

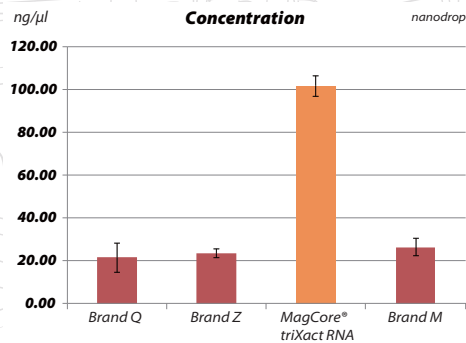


Fig 3. Concentration comparison of RNA from 400µl Human Whole Blood

No.	Kit	nanodrop ng/ul	260/280	260/230
1	Brand Q	28.77	1.99	1.69
2		20.88	2.06	0.31
3		15.02	1.89	0.85
4	Brand Z	21.36	1.97	1.82
5		23.32	1.98	1.48
6		25.50	1.71	1.26
7	MagCore® triXact RNA Kit	96.87	1.94	1.18
8		106.00	1.92	2.02
9		102.06	1.95	2.06
10	Brand M	27.03	1.91	0.73
11		22.09	2.35	1.23
12		30.13	2.08	0.37

Table 2. Analysis of Whole Blood RNA isolated by MagCore® triXact RNA Kit and others

No.	indicated anticoagulants	whole blood (ml)	nanodrop ng/ul	260/280	260/230
1	EDTA	0.4	40.08	2.03	1.69
2		0.8	189.10	1.96	2.09
3		1.2	256.82	1.94	2.12
4	Lithium Heparin	0.4	62.19	1.98	1.79
5		0.8	137.97	1.96	1.98
6		1.2	132.37	1.96	1.96
7	Sodium Citrate 3.2%	0.4	84.52	1.93	1.77
8		0.8	148.96	1.94	2.01
9		1.2	240.19	1.94	2.15
10	BD Vacutainer ACD Solution A	0.4	75.06	1.94	1.79
11		0.8	134.10	1.95	1.93
12		1.2	176.26	1.95	1.16

Table 3. Extraction efficiency of RNA from Human Whole Blood with various anticoagulants

Total RNA from 30mg Fish Tissue

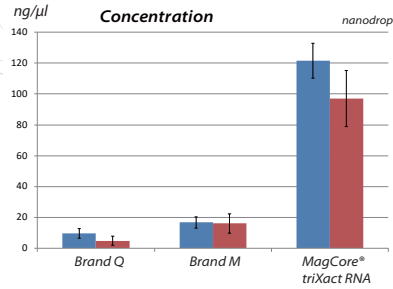


Fig 4. Concentration comparison of RNA from 30mg Fish Tissue with/without DNase I treatment



MagCore® Automated Nucleic Acid Kits Specification

Cartridge Code	MagCore® Super/HF16 Plus/Plus II			MagCore® HF16 /Compact		
	Cat No.	Cat No.	Running Time	Cat No.	Cat No.	Running Time
	24 preps	72 preps		24 preps	72 preps	

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MagCore® triXact RNA Kit

For total RNA extraction from cultured cells, human whole blood and animal tissues
 Contents: Pre-Filled Cartridges, RB Buffer, RBC Lysis Buffer, Filter column Set, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes
 Shelf life: 12 months

MRX-01SP	MRX-03SP	48min (without DNase I treatment; starting volume: 400µl) 81min (with DNase I treatment; starting volume: 400µl) *optical detection is not recommended	MRX-01	MRX-03	58min (without DNase I treatment; starting volume: 400µl) 73min (with DNase I treatment; starting volume: 400µl) (Applicable models: HF16, Compact)
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Enzyme Selection Guide

Product	Contents	Cat. No.
Proteinase K Set	11 mg Proteinase K, 1.25 ml PK Storage Buffer	PK011
DNase I Set	For 36 reactions RNase-Free DNase I (Lyophilized): 1500 Kunitz units x 1 vial, 1 ml RNase-Free Water x 1, 15 ml DNase I Reaction Buffer	DN036
	For 96 reactions RNase-Free DNase I (Lyophilized): 1500 Kunitz units x 2 vial, 1 ml RNase-Free Water x 2, 30 ml DNase I Reaction Buffer	DN096