

# MagCore® Nucleic Acid Extraction Kits



# MagCore® Automated Nucleic Acid Kits Selection Guide



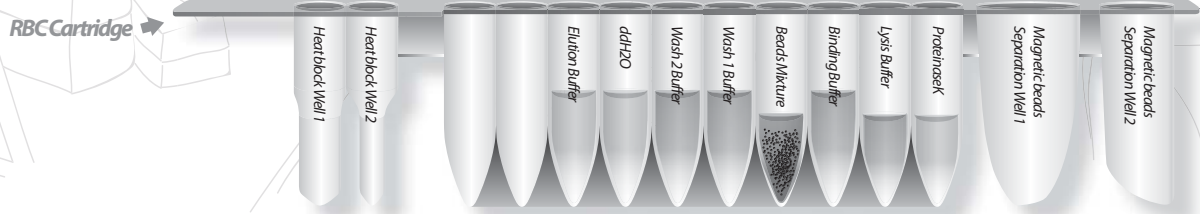
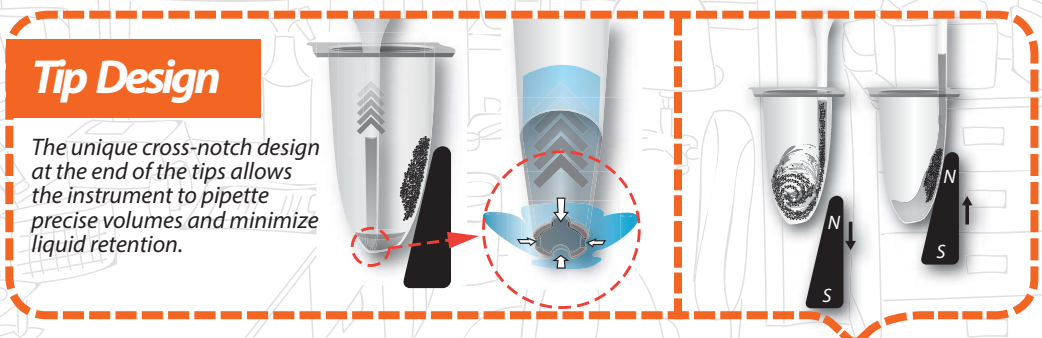
	Cat.No.	Cat.No.	Cat.No.	Cat.No.	Whole Blood	Buffy Coat	Plasma/Serum	Cell-free body fluids	Urine	Free circulating DNA	Cultured Cells	Animal Tissue	Plant Tissue	Bacterial/Sputum	Swab	FFPE	Stool	Forensic Specimens
Genomic DNA	<b>101</b> MagCore® Genomic DNA Whole Blood Kit (Speedy installation)	MGB400-01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

# MagCore® Cartridge Design and Extraction Principle

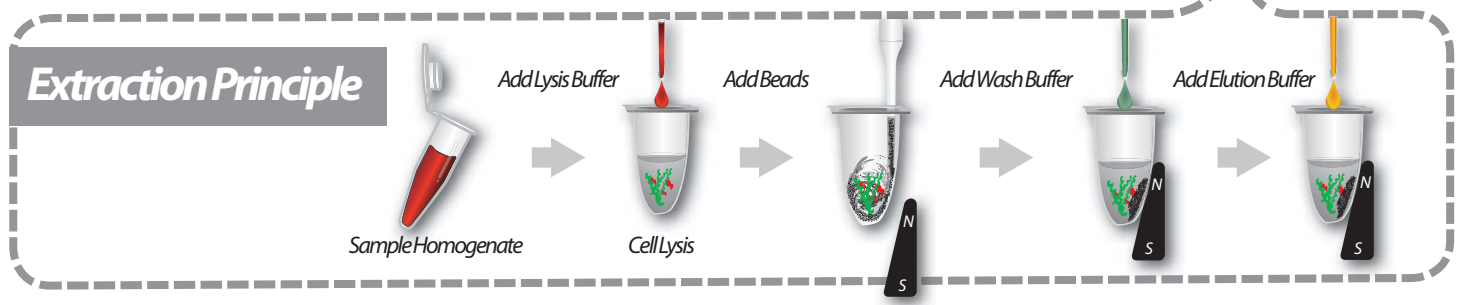


MagCore® cartridges include all reagents needed for purifications, no additional handling is necessary. We minimize any possible contamination and spillage with an automated piercing step for our pre-sealed cartridges. RBC patented Heating Well and Separation Well in the cartridge provide a strong circular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

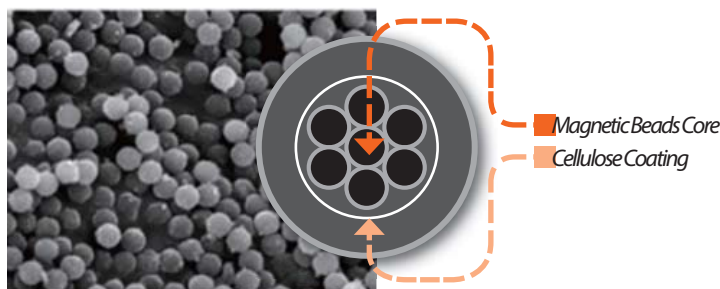


Each cartridge has 14 positions available with 10 sealed wells and 2 heating chambers.



## 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 <sub>3</sub> O <sub>4</sub>
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® Nudeic Acid Extraction Kits

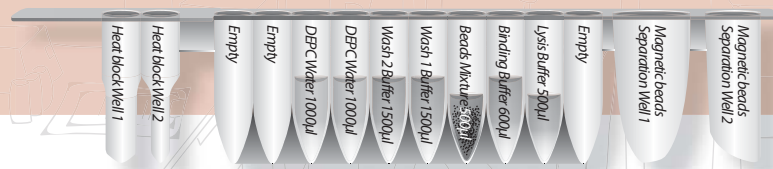


## For extraction of viral DNA/RNA from serum, plasma and cell-free body fluids

The MagCore® Viral Nucleic Acid Extraction Kit is designed for purifying viral DNA and RNA from serum, plasma, and cell free body fluids. MagCore® magnetic particle technology delivers high-quality DNA/RNA that is suitable for direct use in downstream applications such as amplification or other enzymatic reactions. To minimize the risk of cross-contamination, plastic consumables inside the Kit are DNase/RNase treated and the operation system is designed to individually process samples at the same time. Multiple protocols are installed on the instrument and optimized for different sample volumes.

### 201

#### MagCore® Viral Nucleic Acid Extraction Kit



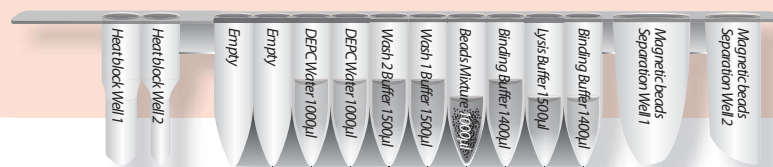
### 202

#### MagCore® Viral Nucleic Acid Extraction Kit (Low PCR Inhibition)



### 210

#### MagCore® Viral Nucleic Acid Large Volume Extraction Kit (2.4 ml)



### 211

#### MagCore® Viral Nucleic Acid Large Volume Extraction Kit (1.2 ml)



#### Features

1. High performance of purified DNA in downstream applications such as qPCR.
2. High analytical sensitivity.
3. Cartridges are pre-filled and sealed to prevent contamination.
4. Walkaway processing improves work efficiency.

#### Applications

MagCore® Viral Nucleic Acid Extraction Kit is designed to allow automated processing of multiple sample types in the same run. Sample types include:

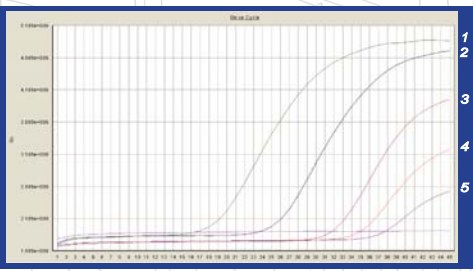
1. Cell-free body fluids
2. Plasma and serum
3. CSF
4. Urine



# Performance

## HBV detection by Real-Time PCR

The isolations of HBV nucleic acid from samples containing different concentrations of HBV were subsequently detected by Real-Time PCR



## Sensitivity test for HBV detection

Lane 1	1x10 <sup>8</sup> HBV serums.
Lane 2	1x10 <sup>7</sup> HBV serums.
Lane 3	1x10 <sup>6</sup> HBV serums.
Lane 4	1x10 <sup>5</sup> HBV serums.
Lane N	Negative control.
Lane M	RBC 100 bp DNA Ladder Marker.

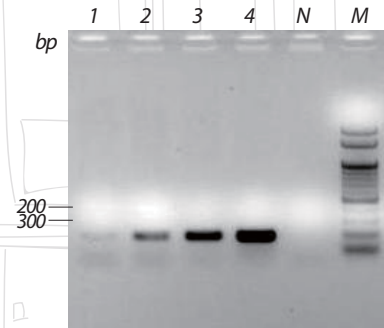


Figure 1. Nested PCR results of HBV at different concentrations. Viral nucleic acids were purified from samples containing different amount of HBV using MagCore<sup>®</sup> Viral Nucleic Acid Extraction Kit.

## Sensitivity test for HCV detection

Lane 1	5x10 <sup>8</sup> HCV serums.
Lane 2	5x10 <sup>7</sup> HCV serums.
Lane 3	5x10 <sup>6</sup> HCV serums.
Lane 4	5x10 <sup>5</sup> HCV serums.
Lane 5	5x10 <sup>4</sup> HCV serums.
Lane 6	5x10 <sup>3</sup> HCV serums.
Lane P	Positive control.
Lane N	Negative control.
Lane M	RBC 100 bp DNA Ladder Marker.

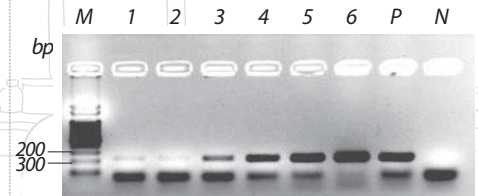


Figure 2. Nested PCR results of HCV at different concentrations. Viral nucleic acids were purified from samples containing different amount of HCV using MagCore<sup>®</sup> Viral Nucleic Acid Extraction Kit.

## MagCore<sup>®</sup> Automated Nucleic Acid Kits Specification

Cartridge Code	MagCore <sup>®</sup> Super/HF16Plus/PlusII			Running Time	MagCore <sup>®</sup> HF16/Compact/HF48			Running Time
	Cat No.	Cat No.	Cat No.		Cat No.	Cat No.	Cat No.	
	36preps	72preps	96preps		36preps	72preps	96preps	

### 201 MagCore<sup>®</sup> Viral Nucleic Acid Extraction Kit

For 200 and 400 µl sample volumes.  
Contents: Pre-Filled Cartridges, Proteinase K, PK Storage Buffer, Carrier RNA, Rnase Free Water, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes  
Shelf life: 18 months

MVN400-01SP	MVN400-02SP	44 min (sample volume:200 µl) 55 min (sample volume:400 µl) *optical detection is not provided	MVN400-01	MVN400-02	45 min (sample volume:200 µl) 56 min (sample volume:400 µl) (Applicable models:HF16, Compact)
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### 202 MagCore<sup>®</sup> Viral Nucleic Acid Extraction Kit (Low PCR Inhibition)

For 200 and 400 µl sample volumes.  
Contents: Pre-Filled Cartridges, Proteinase K, PK Storage Buffer, Carrier RNA, Rnase Free Water, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes  
Shelf life: 18 months

MVN400-03SP	MVN400-04SP	62 min (sample volume:200 µl) 73 min (sample volume:400 µl) *optical detection is not provided	MGB400-03	MGB400-04	57 min (sample volume:200 µl) 66 min (sample volume:400 µl)
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### 210 MagCore<sup>®</sup> Viral Nucleic Acid Large Volume Extraction Kit (2.4 ml)

For 2400 µl sample volumes.  
Contents: Pre-Filled Cartridges, Proteinase K, PK Storage Buffer, Carrier RNA, Rnase Free Water, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes  
(special T-rack required for 5 ml sample tubes)  
Shelf life: 18 months

				MVN2400	90 min (sample volume:2400 µl) (Applicable models:HF16, Compact)
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### 211 MagCore<sup>®</sup> Viral Nucleic Acid Large Volume Extraction Kit (1.2 ml)

For 1200 µl sample volumes.  
Contents: Pre-Filled Cartridges, Proteinase K, PK Storage Buffer, Carrier RNA, Rnase Free Water, Disposable Tip & Holder Sets, Sample Tubes, Elution Tubes  
Shelf life: 18 months

		MVN1200SP	80 min (sample volume:1200 µl) *optical detection is not provided		MVN1200	73 min (sample volume:1200 µl)
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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
RNase A	50 µl RNase A (50mg/ml)	RN050
	130 µl RNase A (50mg/ml)	RN130



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