

# **Nucleic Acid Isolation & Automatic Solution**



Magen is a biology company focused on biological samples preparation, including sample collection and preservation, nucleic acid purification, and automation. We are aiming to supply high quality products and solutions to clinical users, scientific researchers, biology companies, agricultural applications and related government departments. Magen nucleic acid purification products offer for all biological samples, and have unique advantages in high throughput sample processing.

Magen nucleic acid purification products can be simply divided into 4 series. Silica membrane column purification (HiPure), magnetic particles purification (MagPure), salting out purification (SolPure) and DNA/RNA/ protein co-isolation (AllPure). We also provide Automatic Nucleic Acid Purification Machines. We have hundreds of products, about 80% products have been compared with Qiagen, MN, Life, ect corresponding products. And all got excellent performance overall. In 2015, the company got in vitro diagnostic reagents production qualification, now we have dozens of nucleic acid purification products in clinical applications.

This catalogue only includes our hot products, for more products information, pls visit our website: [www.magen-tec.com](http://www.magen-tec.com) or [www.magentec.com.cn](http://www.magentec.com.cn)

## Catalogue

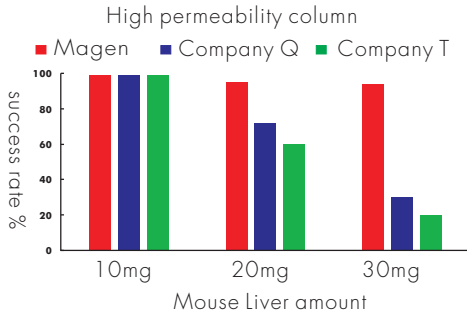
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## Magen Technology Overview

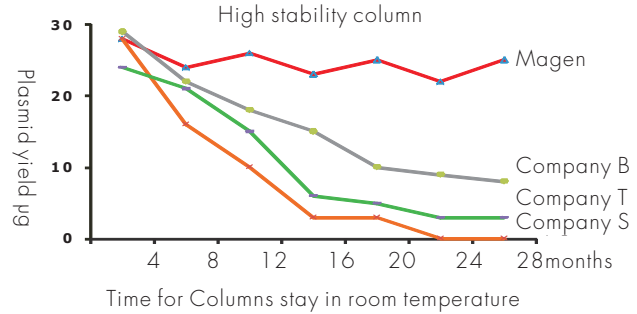
Magen Biotech developed series of sample preservation, transportation and nucleic acid purification technology. It can provide best solutions for various kinds of biological sample's nucleic acid purification. No matter what request you need, you can always find the right products in Magen's product line. Magen kits purification technology includes: HiPure (silica gel column purification technology), MaxPure (improved silica gel column purification technology), MagPure (magnetic beads purification technology), AllPure (DNA/RNA/Protein co-isolation technology), RaPure (rapid extraction technology), SolPure (solution purification technology), SafPure (sample transportation and purification), AmPure (Direct PCR technology).

## HiPure - Column Purification Technology

HiPure purification technology uses silica gel membrane as matrix to change the nucleic acid isolation process from complicated centrifuge operation to simple filtration operation. In condition of high salt concentration, DNA/RNA are adsorbed on the silica membrane, but protein and other impurities are not adsorbed and flow through. Then protein and salt adsorb on the silica membrane are removed by washing buffer. DNA/RNA washed out by low salt buffer and get purity DNA/RNA at last. HiPure technology greatly save time for nucleic acid isolation, most samples can get high quality DNA/RNA in only 10~20 minutes. In addition, the simplified filtration process greatly improves the stability of experiments in different times.



Comparing Magen, Company Q and T's RNA columns by extracting RNA from 10mg, 20mg and 30mg mouse liver samples. Repeat every testing 10 times and get success rates. Failure test results are caused by blocking of the columns. Results show that Magen RNA column has best permeability and can successfully deal with 30mg samples.

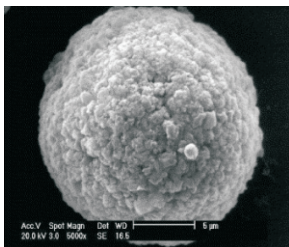


Comparing Magen and other 3 companies DNA columns by storing at room temperature for 4-28 months. Testing DNA yield by extracting plasmid DNA with HiPure Plasmid Micro Kit. Results show that Magen DNA column got stable binding ability from 4 to 28 months. And other 3 companies DNA columns binding ability decrease significantly for long time storage.

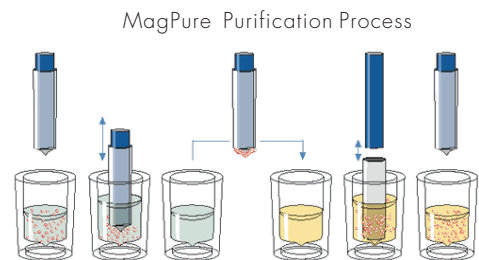
## MagPure - Magnetic Particles Purification Technology

MagPure purification technology is specially designed for automatic nucleic acid extraction. It uses superparamagnetic particles (Magnetic Beads) as matrix, isolating DNA/RNA from different samples. DNA/RNA specially adsorbed with silanol or carboxyl groups on the magnetic beads. MagPure kits can be applied on pipetting workstation and automatic nucleic acid extraction machines, it changes DNA/RNA isolation from manual operation to machine automation. This technology greatly improves the accuracy and efficiency of the experiment, and gets more stable results. Magen's MagPure kits advantages:

1. Provide different size and functional groups particles for different samples to achieve optimal purification results.
2. Develop the best reagents systems and extraction process to minimize manual processing.
3. Design the best process and solutions according to the automated extraction platform.



A highly homogeneous carboxyl magnetic bead used for sequencing product recovery



MagPur kits work on KingFisher Machine

Analysis of tumor-specific extracellular DNA fragments and mRNAs in the blood can enable specific detection of tumor types from a simple blood sample. These circulating nucleic acids are present in serum or plasma usually as short fragments, <1000 bp (DNA) or <1000 nt (RNA). In addition, miRNAs, as small as 21 nt, have the potential to provide biomarkers for certain cancers and disease states.

Researchers found cell free fetal DNA in plasma and serum of pregnant women’s peripheral blood. This makes it possible to detect fetal chromosomal diseases by collecting maternal peripheral blood. Non-Invasive Prenatal DNA Testing (NIPT) is a safe/ accurate/ fast technology for fetal diseases detection including Down Syndrome, Edwards Syndrome, and Patau Syndrome.

Magen R&D department developed different kinds of circulating nucleic acid purification kits for NIPT. We have column method purification kits for different sample size, magnetic beads method purification kits for manual, pipetting workstation and different kinds of automatic nucleic acid extraction machines.

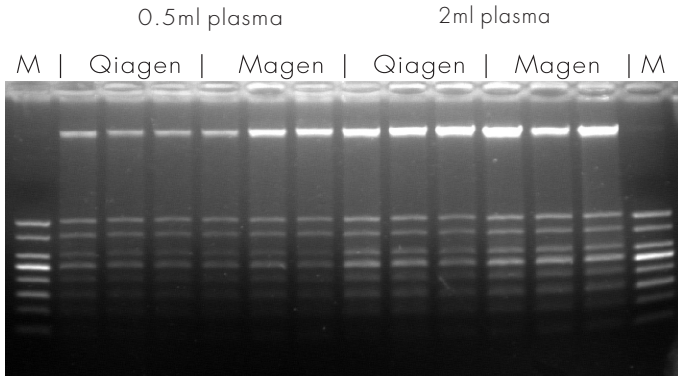
## Product Guide

	Product Name	Cat #	Preps	Price (\$)	Feature	Substitute Products
Columns	HiPure Circulating Nucleic Acid Kit (0.6ml)	D318002	50	224	● Circulating DNA/RNA from 0.6ml plasma/serum/body fluids	
		D318003	250	1044		
	HiPure Circulating DNA Midi Kit (1~5ml)	IVD3182	50	746	● Circulating DNA from 1~5ml plasma/serum/body fluids by vacuum	qiagen 55114
	HiPure Circulating DNA Midi Kit D (1~5ml)	D318203D	50	895	● Circulating DNA from 1~5ml plasma/serum/body fluids by spin	
	HiPure Circulating DNA Midi Kit A (2ml)	D318203A	50	597	● Circulating DNA from 1~2ml plasma/serum/body fluids by spin	
	HiPure Circulating DNA Midi Kit B (2ml)	D318203B	50	497	● Circulating DNA from 1~2ml plasma/serum/body fluids by Vacuum	
	HiPure Serum miRNA Kit (0.3-0.9ml)	R431402	50	149	● miRNA from 0.3-0.9ml Serum/Plasma	MN 740981.50
R431402		250	646			
HiPure Circulating DNA&RNA Kit	R431602	50	373	● Circulating DNA/RNA all extract from 1-5 serum/plasma	Qiagen #55184	
	R431603	250	1616			
Magnetic Particles	MagPure Circulating DNA Mini Kit	IVD5432	200	597	● Circulating DNA from 0.2~0.6ml plasma/body fluids by Magnetic beds	Life A29319
	MagPure Circulating DNA Maxi Kit	IVD5435	50	646	● Circulating DNA from 1~8ml plasma/serum/body fluids by Magnetic beds	
		1290750	50	200		
	MagPure Circulating DNA Rich Mini Kit	129107200	200	696	● Rich small fragment cfDNA from 0.6ml serum/plasma	
		1292750	50	1094		
	MagPure Circulating DNA Rich Maxi Kit	12927200	200	3978	● Rich small fragment cfDNA from 5ml serum/plasma	
R662802		96	398			
MagPure Serum miRNA Kit	R662803	480	696	● miRNA from 0.3~0.6ml serum/plasma		

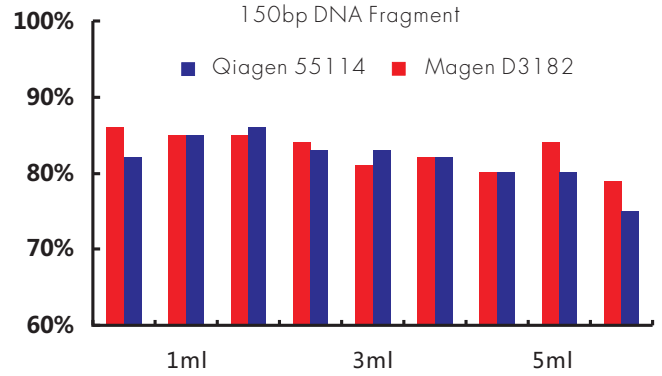
## 1. HiPure Circulating DNA Midi Kit (IVD3182)

HiPure Circulating DNA Kits Vs Qiaamp Circulating NA Kit(55114)

DNA fragment recovery comparison

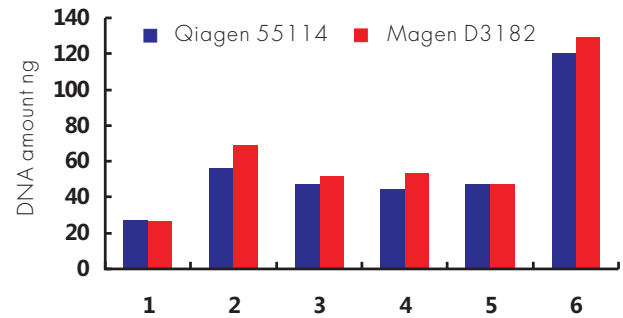
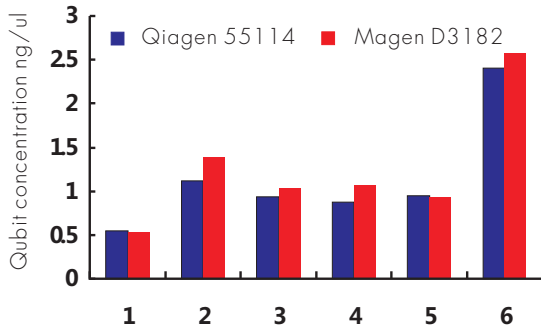


Add 100bp DNA Marker into 0.5ml and 2ml pig plasma, extract DNA by HiPure Circulating DNA Kit (IVD3182) and QIAamp Circulating Nucleic Acid Kit (55114), then run DNA on Agarose gel. Results show that two kits get similar DNA yield.



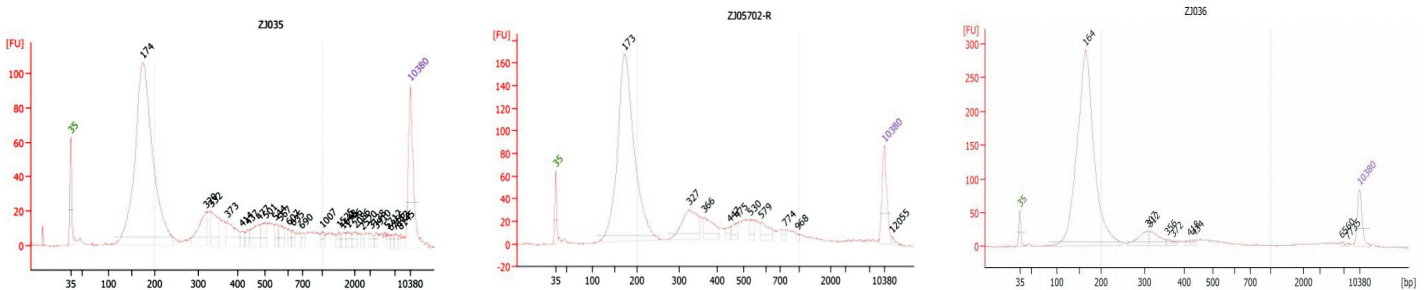
Add 400ng 150bp DNA fragment into 1ml, 3ml and 5ml plasma, extract DNA by Qiagen #55114 and Magen IVD3182, then quantitative DNA by Aligent 2100 and calculate DNA fragment recovery rate. Results show that two kits get similar DNA yield, both are >80%.

## Human plasma DNA extraction comparison



Use Qiagen #55114 and Magen #D3182-03C extracting cfDNA from 6 human plasma samples (4ml). Elute purified DNA by 50ul Buffer TE. Testing DNA concentration and amount by Qubit. Results show that Magen IVD3182 gets higher DNA yield than Qiagen #55114.

## Aligent 2100 analyze results for CFDNA extracted from 2ml plasma



Use Magen HiPure Circulating DNA Kit (IVD3182) extracting cfDNA from 3 human plasma samples (2ml) with vacuum operation. Elute purified cfDNA by 50µl Buffer TE and then analyze DNA by Aligent 2100.

## 1. HiPure Circulating DNA Midi Kit (IVD3182)

DNA extraction results of 52 clinical plasma samples (2~6ml)

No.	Plasma ml	Conc. ng/μl	Elute ul	DNA ng	No.	Plasma ml	Conc. ng/μl	Elute ul	DNA ng	No.	Plasma ml	Conc. ng/μl	Elute ul	DNA ng	No.	Plasma ml	Conc. ng/μl	Elute ul	DNA ng
1	2	0.54	45	24.2	14	3	29.50	25	737.5	27	4	3.44	12	41.3	40	5	9.87	25	246.8
2	2	0.92	45	41.3	15	3	1.29	25	32.3	28	4.5	27.70	25	692.5	41	5	1.32	25	33.0
3	2	2.32	45	104.4	16	3	2.13	25	53.3	29	4.5	1.63	25	40.8	42	5	1.19	25	29.8
4	2	1.09	45	49.1	17	3	1.21	25	30.3	30	4.5	7.40	25	185.0	43	5	0.98	25	24.5
5	2	1.09	45	49.1	18	3	1.88	25	47.0	31	4.5	5.68	25	142.0	44	5	3.29	25	82.3
6	2	0.37	45	16.5	19	3	1.31	25	32.8	32	4.5	1.74	25	43.5	45	5	3.78	25	94.5
7	2	1.43	45	64.4	20	3.5	1.61	25	40.3	33	4.5	2.66	25	66.5	46	5	2.15	25	53.8
8	2	1.15	45	51.8	21	3.5	0.88	25	22.1	34	5	4.31	25	107.8	47	5	2.34	25	58.5
9	2	0.621	45	27.9	22	3.5	1.18	25	29.5	35	5	16.30	25	407.5	48	5.5	2.85	25	71.3
10	2	1.07	45	48.2	23	4	1.29	25	32.3	36	5	1.63	25	40.8	49	5.5	1.14	25	28.5
11	2	0.60	45	27.1	24	4	2.13	25	53.3	37	5	2.03	25	50.8	50	5.5	1.46	25	36.5
12	2	1.69	45	76.05	25	4	1.24	25	31.0	38	5	2.10	25	52.5	51	5.5	2.15	25	53.8
13	2	0.72	45	32.5	26	4	0.55	25	13.7	39	5	0.95	25	23.8	52	6.5	5.06	25	126.5

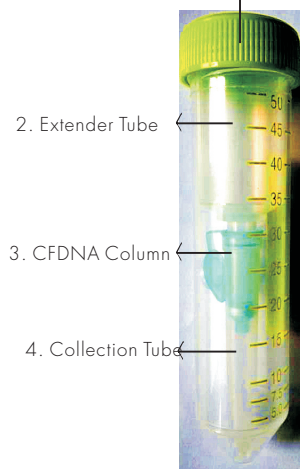
52 cases using Magen IVD3182 extracting circulating DNA from plasma samples (2~6ml), and then quantitate DNA by Qubit. Datas provided by our customers. Magen has dealt with above 100,000 cases on 2ml plasma sample for methylation analysis.

### Selection guide for two operations

#### Centrifuge Operation

- Place Extender Tube (2)/CFDNA Mini Column (3)/Collection Tube (4) together and put in 50ml Centrifuge Tube (1).
- Lyse plasma by Buffer ACL and Proteinase K, then mix with Buffer ACB
- Add 10~15ml mixture to Extender Tube and centrifuge for 3~5 min, discard flow-through.
- Remove mini column and elute with mini centrifuge.

1. 50ml centrifuge tube



#### Centrifuge operation cfDNA Kits

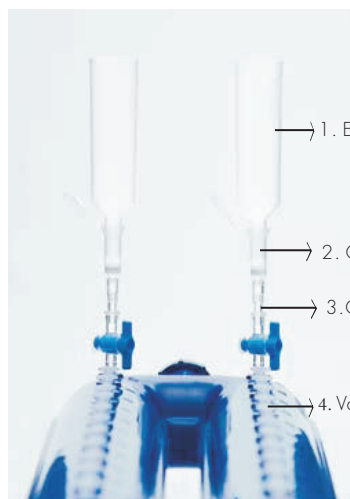
Sample	Cat#	Size	Price (\$)
2ml	D3182-02A	10Preps	150
	D3182-03A	50Preps	597
3ml	D3182-02S	10Preps	200
	D3182-03S	50Preps	750
5ml	D3182-02D	10Preps	250
	D3182-03D	50Preps	895

#### Feature:

This process only need large centrifuge for 50ml tube, do not need vacuum pumping machine.

#### Vacuum operation cfDNA Kit

Sample	Cat#	Size	Price (\$)
2ml	D3182-02	10Preps	150
	D3182-03	50Preps	497
3ml	D3182-02B	10Preps	180
	D3182-03B	50Preps	550
5ml	D3182-02C	10Preps	200
	IVD3182	50Preps	746



#### Vacuum Operation

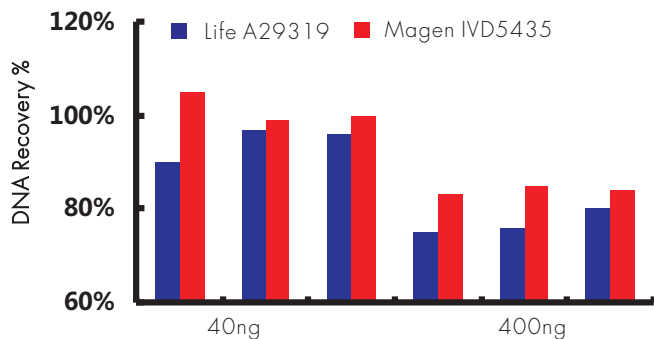
- Place Extender Tube (1)/CFDNA Column (2)/Connector (3)/Vacuum Manifold (4) together.
- Lyse plasma by Buffer ACL/Proteinase K and mix Buffer ACB.
- Add 20ml mixture to Extender Tube.
- Open vacuum pump for filtration until all mixture complete (5~15min)

#### Feature:

This process needs vacuum manifold and vacuum pump. Magen vacuum Kits could be used with Qiagen QIAvac 24 plus vacuum manifold and vacuum pump.

## 2. MagPure Circulating DNA Maxi Kit--1~8ml Plasma Sample(IVD5435)

DNA Fragment recovery comparison



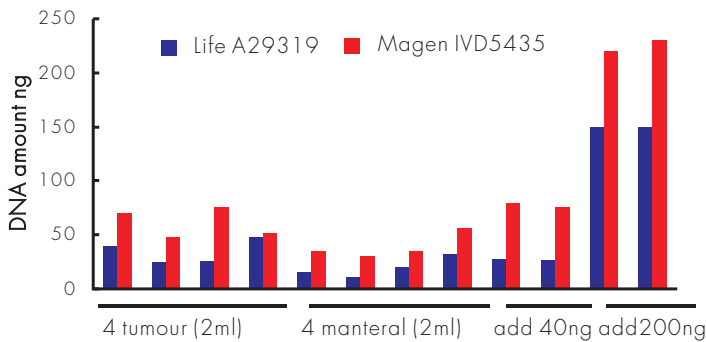
Add 40ng/400ng 200bp DNA fragment into 2ml manteral plasma, extract DNA by Life #A29319 and Magen IVD5435, then analyze DNA yield by Aligent 2100. Results show that Magen kit gets higher recovery (higher fluorescence on 200bp point). Magen kit gets 80% recovery on 400ng DNA fragment and reaches 90~100% on 40ng DNA fragment.

High DNA yield (same copies as circulating DNA)

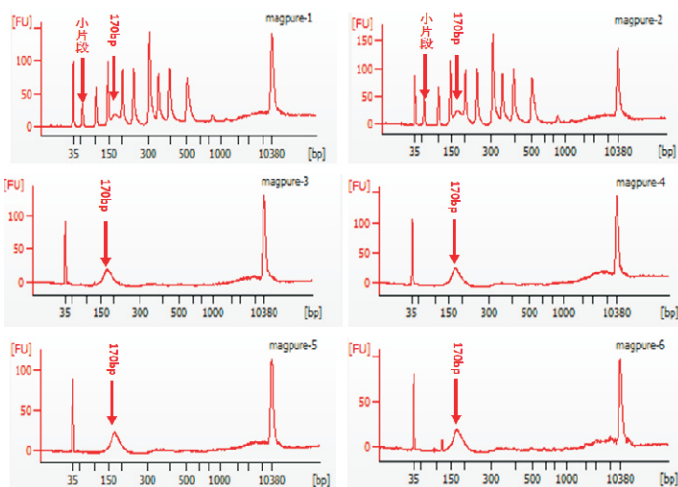
Sample Volume	HBV copies Added	CT value QPCR
200 $\mu$ l	$1 \times 10^3$	28.7
200 $\mu$ l	$1 \times 10^3$	28.5
400 $\mu$ l	$1 \times 10^3$	28.4
400 $\mu$ l	$1 \times 10^3$	28.3
2ml	$1 \times 10^3$	28.3
2ml	$1 \times 10^3$	28.0
4ml	$1 \times 10^3$	28.7
4ml	$1 \times 10^3$	28.8

Add  $1 \times 10^3$  HBV (about 1pg DNA, same copies as circulating DNA) into 200 $\mu$ l, 400 $\mu$ l, 2ml and 4ml manteral plasma sample. Extract DNA by Magen IVD5435, and then run real time PCR by HBV real time PCR Kit (Daan Gene). Results show that Magen IVD5435 gets high recovery for different volume of samples. Even for trace amount HBV DNA.

2ml manteral/tumour plasma DNA extraction comperasion



Take 4 tumour/manteral plasma (2ml) samples, and add 40ng/200ng DNA Marker into 2 manteral plasma (2ml) samples. Extract DNA by Life #A29319 and Magen IVD5435, and analyze DNA by Qubit.



Aligent 2100 analysis data for manteral plasma, and manteral plasma with DNA Marker.

2ml tumour/healthy plasma DNA extraction Result

Sample Type	No.	Plasma (ml)	Elute ( $\mu$ l)	Qubit Conc. ng/ $\mu$ l	DNA ng
Tumour	P-1	2	60	0.795	39.8
Tumour	P-2	2	60	0.469	23.4
Tumour	P-3	2	60	0.340	17.0
Tumour	P-4	2	60	0.191	9.6
Tumour	P-5	2	60	0.271	13.5
Tumour	P-6	2	60	0.947	47.4
Tumour	P-7	2	60	0.330	16.5
Tumour	P-8	2	60	2.508	125.4
Tumour	P-9	2	60	0.488	24.4
Tumour	P-10	2	60	0.657	32.8
Healthy	N-1	2	60	0.168	8.4
Healthy	N-2	2	60	0.974	48.7
Healthy	N-3	2	60	0.198	9.9
Healthy	N-4	2	60	0.310	15.5
Healthy	N-5	2	60	0.287	14.4
Healthy	N-6	2	60	0.343	17.2
Healthy	N-7	2	60	0.191	9.6
Healthy	N-8	2	60	0.185	9.2
Healthy	N-9	2	60	0.284	14.2
Healthy	N-10	2	60	0.168	8.4

Extract DNA from 10 tumour/healthy plasma (2ml) samples by Magen IVD5435. And analyze DNA by Qubit.



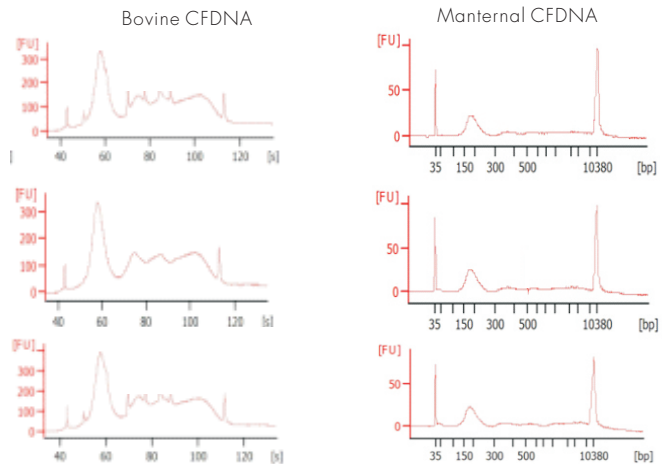
## 2~6ml plasma sample automatic purification--- KingFisher Flex Extraction Vs Column Extraction

Product	Plasma	Conc.	Elute	Vol.	DNA ng
Column	2ml	0.575	60µl	55µl	34.5
	4ml	0.875	60µl	55µl	52.5
	6ml	1.3	60µl	55µl	78
KingFisher Flex	2ml	0.532	60µl	56µl	31.9
	4ml	0.86	60µl	54µl	51.6
	6ml	1.22	60µl	53µl	73.2

Use MagPure Circulating DNA Maxi KF Kit (IVD5435) and HiPure Circulating DNA Midi Kit D (#D3182D) extracting CFDNA from 2ml/4ml /6ml plasma sample and analyze DNA by Qubit. Results show that using #MD5435 on KingFisher Flex automatic machine gets almost same results with column method (#D3182D). The machine process greatly save time with only 40 min operatio. But results show #Md5435 gets lower DNA yield than #D3182D, this is because KingFisher Flex needs Carrier RNA to avoid consumable adsorption.

## 2~4ml plasma DNA automatic purification by Spin 24 Extractor

Sample	Vol.	Manual		Automatic	
		Conc. ng/µl	DNA ng	Conc. ng/µl	DNA ng
Manternal	2ml	0.96	57.6	0.79	47.4
Manternal	2ml	0.97	58.2	0.78	46.8
Manternal	4ml			1.37	82.2
Manternal	4ml			1.42	85.2
Bovine	2ml	0.312	18.7	0.248	14.8
Bovine	2ml	0.318	19.08	0.273	16.4
Bovine	4ml			0.529	31.7
Bovine	4ml			0.494	29.6



Use MaPure Circulating DNA Maxi Kit (IVD5435) extracting CFDNA from 2ml/ 4ml plasma sample. Comparing automatic extraction (Spin 24 Extractor) and manual extraction, Quantitate DNA by Qubit (left) and analyze DNA by Aligent 2100 ( right). Results show that 2ml and 4ml plasma sample both keep a good linear relationship when using automatic extraction by Spin 24 Extractor. Comparing with manual operation, Spin 24 Extractor gets lower DNA yield, this is because not using Carrier RNA.

## MagRotex 24 Extractor

MagRotex 24 Extractor uses innovative rotating magnetic beads resuspension technology and independent sample extraction consumables design. It can deal with large samples size (starting sample volume reach 4 ml) and complete 1~24 different nucleic acid samples rapidly at the same time. Independent consumable design ensures the independence of sample processing and avoids waste of consumable. Large touch screen and simple operations, easy to use. DNA is stored in independent elution tubes.

### Features

- Large size processing - bulk sample volume processing, 0.5~4ml nucleic acid samples
- Rotary suspension - innovative rotating magnetic beads resuspension technology, avoid aerosol pollution.
- Independent consumable design - one consumable with one sample, separately, avoid cross contamination.
- Safety protection - automatic locking door, ensure the operation safety.



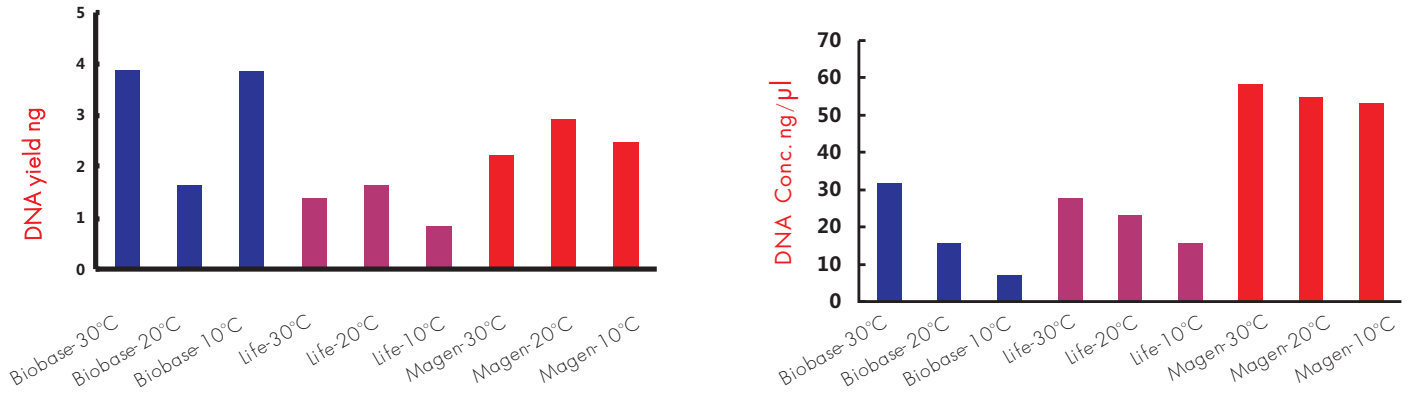
MagRotex 24 Extractor



Independent consumable

### 3. MagPure Circulating DNA Mini Kit-NIPT Application (0.2~1.2ml, IVD5432)

200 $\mu$ l maternal plasma extraction comparison (Biobase VS Life A29319 VS Magen 12919AN)



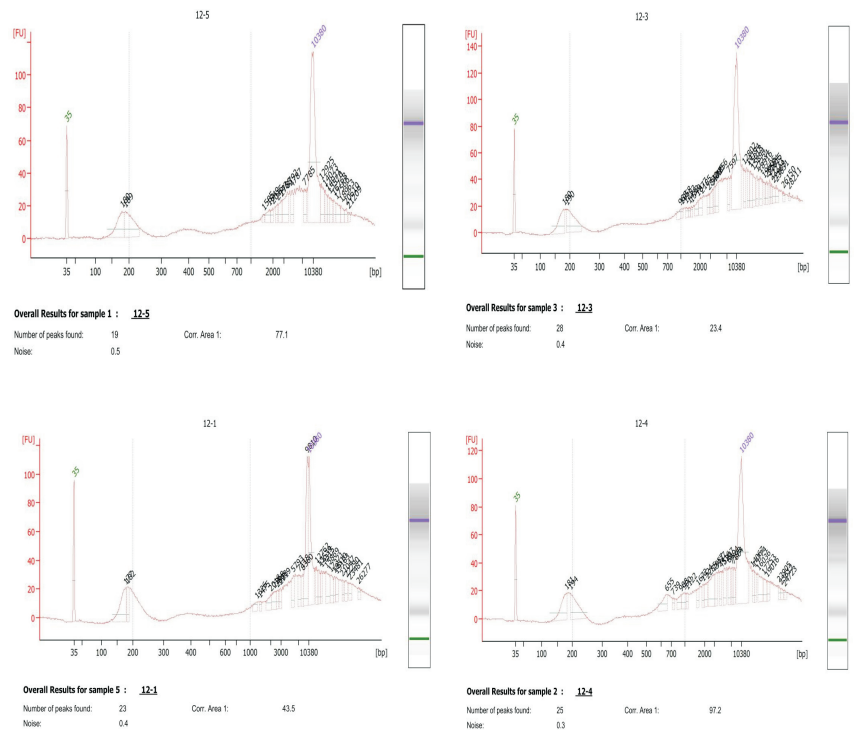
Use Biobase, Life #A29319 and Magen IVD5432 extracting circulating DNA from 10 pregnant women's plasma sample (200 $\mu$ l) and operating in different temperatures (10°C/20°C/30°C), Analyze DNA concentration by Qubit (Figure Left) and quantitate DNA amount by library building (Figure Right). Results show that Magen #12919AN gets 12~20ng DNA from every ml plasma, much higher yield than Life #A29319. And Magen #12919AN gets higher DNA library concentration than other two companies. The test operated on Hamilton Pipetting workstation.

### CFDNA manual extraction results for 0.3~1.2ml maternal plasma (popular size for NIPT)

#### Qubit results

Sample	Plasma ( $\mu$ L)	DNA Conc. (ng/ $\mu$ L)	DNA (ng)	Average (/100 $\mu$ L)
1	300	0.40	6.0	2.0
2	300	0.40	6.0	2.0
3	300	0.50	7.5	2.5
4	300	0.37	5.6	1.9
5	300	0.42	6.3	2.1
1	600	0.72	11.5	1.9
2	600	0.73	11.6	1.9
3	600	0.74	11.8	2.0
4	600	0.82	13.1	2.2
5	600	0.77	12.3	2.1
1	1200	1.33	22.6	1.9
2	1200	1.19	20.2	1.7
3	1200	1.36	23.1	1.9
4	1200	1.32	22.4	1.9
5	1200	1.57	26.7	2.2

#### Aligent 2100 results



Use MagPure Circulating DNA Mini Kit (IVD5432) extracting circulating DNA from 5 pregnant women's plasma sample (0.3ml/0.6ml/1.2ml). Elution volume is 15~17 $\mu$ l. Results show that Magen IVD5432 keeps good linear relation with 0.3ml, 0.6ml and 1.2ml plasma sample.

With the rapid development of tumor molecular biology research, collection and storage of fresh tumor samples has become a difficult problem. Formalin-fixed, paraffin-embedded (FFPE) tissue samples, preparing from human surgical tissue samples by fixation with formalin and embedding in paraffin, easily solve this problem. However, extracting DNA/RNA from FFPE samples are not easy, because chemical modifications by formaldehyde and fragmentation of the DNA during tissue processing (sampling, fixing, embedding) and storage (humidity, time, temperature) of the samples. Standard DNA/RNA isolation process often result in low DNA/RNA yield or poor performance in downstream applications (e.g., PCR). Magen R&D department has developed a variety of FFPE DNA/RNA extraction products with a special purification system. Magen also develop automatic nucleic acid purification machines going with our reagents.

## Product Guide

	Product Name	Cat#	Preps	Price (\$)	Feature	Substitute Product
Column	HiPure FFPE DNA Kit	IVD3126	50	249	● Isolation DNA from FFPE sections and tissue	qiagen 56404
	HiPure FFPE RNA Plus Kit(with Dnase I)	IVD4144	50	298	● Isolation RNA from FFPE sections and tissue include Dnase I	qiagen 73504
	AllPure FFPE DNA/RNA Kit	IVD5116	50	298	● Co-isolation RNA/DNA from a singal FFPE sample	qiagen 80234
	HiPure FFPE Nucleic Acid Kit	D312602D D312603D	50 250	149 646	● Isolation Total Nucleic acid from FFPE sections and Tissue	
Magnetic Bead	MagPure FFPE DNA LQ Kit	D6323-01D D6323-02D	48 96	149 288	● Isolation DNA from FFPE sections and tissue(rich pigment samples)	
	MagPure FFPE DNA LQ Kit B	D6323-01B D6323-02B	48 96	149 288	● Isolation DNA from small amounts of FFPE sections and tissue, such as one sections, puncture sample	omega biotek: M6958-01
	MagPure FFPE RNA LQ Kit	IVD3022	200	1600	● Isolation RNA from FFPE sections and tissue	
	MagPure FFPE DNA/RNA Kit	IVD3026	200	1492	● co-isolation RNA and DNA from a single FFPE sections and tissue	
	MagPure FFPE DNA/RNA Kit B	D6327-01B D6327-02B	48 96	450 800	● co-isolation RNA and DNA from a single FFPE sections and tissue	Life: A31881

### FFPE DNA Automatic Isolation-MagMix 32 Extractor

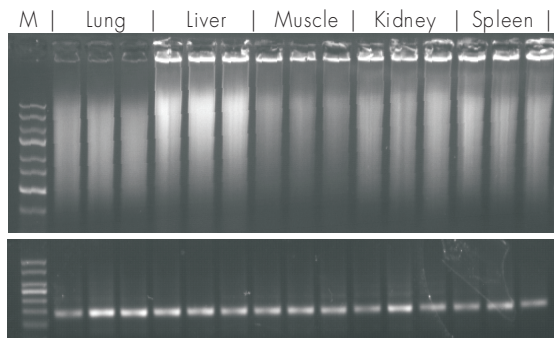
MagMix 32 Extractor uses magnetic bar flapping technology, extracting nucleic acid automatically by program settings for different samples. Including process for lysing samples, nucleic acid binding on magnetic beads, eluting, magnetic beads transfer and isolation. It can process 32(2 x16) nucleic acid samples (Tissue, Plant, FFPE, Food, Microorganism, Virus, ect.) rapidly at the same time. This machine is widely used in clinical testing, routine scientific research, genomics analysis, disease control system, food safety inspection, forensic identification, ect.



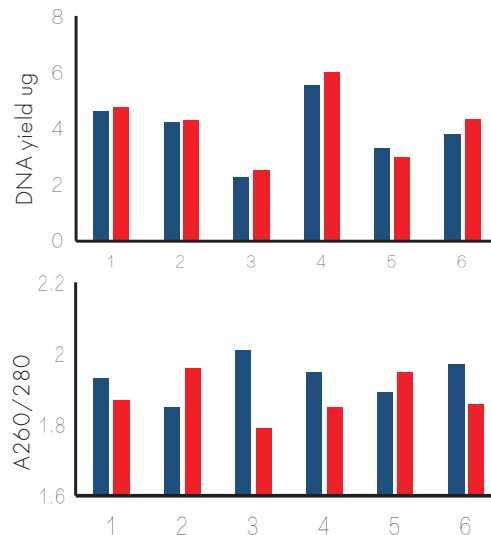
MagMix 32

- Double-hole lysing; sample size reach 600µl
- High-throughput: handle 32 samples at a time
- Simple operation: large screen, easy to use
- Complete mix: magnetic bar flapping technology

### HiPure FFPE DNA Kit (IVD3126) Extract DNA from Formalin-fixed, paraffin-embedded (FFPE) tissue samples



Use HiPure FFPE DNA Kit extracting 5 different chicken FFPE tissue (5mg), then take 10% purified DNA running on 1% agarose gel (figure up). Take 1.5% purified DNA running on PCR, amplifying  $\beta$ -actin gene, then run on 1% agarose gel (figure down).



6 clinical FFPE tissue samples, take 5 sections from each sample. Use HiPure FFPE DNA Kit (IVD3126) and QIAamp FFPE DNA Kit (D56404) extracting DNA, and elute with 50ul Elution Buffer. Analyze DNA yield by Nanodrop 2000. Results show that Magen #D3126 and Qiagen #D56404 get similar DNA yield and purity.

### HiPure FFPE RNA Plus Kit(R4144) Vs Qiagen RNeasy FFPE RNA Kit (73504)

Sample	Sections	Company	Conc.(ng/ $\mu$ l)	Nanodrop Results			Qubit Results	
				A260/280	A260/230	Qubit(ng/ $\mu$ l)	Vol.( $\mu$ l)	DNA( $\mu$ g)
1	2	Magen	332.4	1.8	1.2	65.2	50	3.26
	2	Qiagen	123.1	1.7	1.3	30.5	50	1.53
2	2	Magen	454.8	2.0	1.6	274	50	13.7
	2	Qiagen	343	2.1	2.1	183	50	9.2
3	2	Magen	491.3	2.0	1.2	252	50	12.6
	2	Qiagen	448	1.9	1.1	300	50	15
4	2	Magen	214.6	2.0	1.9	56.8	50	2.8
	2	Qiagen	156.7	1.9	1.9	50.1	50	2.5
5	2	Magen	783.7	1.9	1.9	362	50	18.1
	2	Qiagen	655.3	1.9	2.2	315	50	15.8
6	2	Magen	140.8	1.9	1.6	67.4	50	3.4
	2	Qiagen	143.5	1.8	2.0	72.3	50	3.6

6 Lung Cancer FFPE samples, use Magen #R4144 and Qiagen #73504 extracting RNA. Test RNA by Nanodrop and Qubit. Results show that Magne kit gets higher yield than Qiagen kit by both OD and Qubit data. OD 260/280 and 260/230 data show that two kits have same RNA purity.

### FFPE DNA/RNA amplifying comparison (Magen IVD5116 VS Qiagen #80234)

Template	Size	Method	Sample 1		Sample 2		Sample 3	
			Magen	Qiagen	Magen	Qiagen	Magen	Qiagen
FFPE DNA	100bp	PCR	24.5	25.3	24.0	24.2	29.9	31.0
FFPE DNA	200bp	PCR	25.6	25.4	23.8	23.5	29.8	30.7
FFPE DNA	300bp	PCR	25.0	26.5	24.6	25.1	33.1	33.2
FFPE RNA	150bp	RT-PCR	22.9	22.2	22.1	21.8	23.0	23.8

Take 3 FFPE tissue samples, Co-Isolating DNA and RNA by Magen IVD5116 and Qiagen #80234. Analyze DNA by Real-time PCR on 100bp, 200bp, and 300bp. Analyze RNA by Real-time RT-PCR. Datas show that Magen kits and Qiagen kits get similar results.

## MagPure FFPE DNA LQ Kit B(D6323B) VS Qiagen #56404

Kits	FFPE Sections	Nano ng/µl	Qubit ng/µl	DNA ng	A260/280	DNA quality
Magen	2	35.5	9.18	367	1.78	B
Qiagen	2	14.5	2.18	87	1.83	B
Magen	2	167.4	49	1960	1.83	B
Qiagen	2	61.5	12.6	504	1.83	B
Magen	2	100.3	30.2	1208	1.81	B
Qiagen	2	53.7	11.3	452	1.81	B
Magen	2	39.5	12.4	496	1.79	B
Qiagen	2	13.8	1.99	79	1.73	B
Magen	2	64.7	25	1250	1.71	2438bp
Qiagen	2	127.4	16.4	656	1.85	2345bp
Magen	2	74.1	24.5	1225	2.11	2117bp
Qiagen	2	57.7	12.9	516	1.86	1876bp
Magen	2	17.6	4.08	204	1.72	1803bp
Qiagen	2	67.1	4.64	185	1.63	1604bp
Magen	2	17.6	6.12	306	1.77	2344bp
Qiagen	2	80.6	12	480	1.82	811bp

Use Magen #D6323 and Qiagen #56404 extracting DNA from different FFPE samples (2 sections each). Analyze DNA by Nanodrop and Qubit. OD and Qubit datas show that Magen kit gets higher DNA yield and purity than Qiagen kit. DNA fragments quality from FFPE are similar for both kits. (This test is provided by two famous biology companies using Magen kits.)

## FFPE DNA extraction Cross contamination test for MagMix 32 Extractor

96 Plate hole	Sample type	SRY Gene	96 Plate hole	Sample type	SRY Gene
A1	Male	CT: 22.7	A7	Male	CT: 23.6
B1	Female	CT: no	B7	Female	CT: no
C1	Male	CT: 23.2	C7	Male	CT: 18.9
D1	Female	CT: no	D7	Female	CT: no
E1	Male	CT: 25.3	E7	Male	CT: 24.8
F1	Female	CT: no	F7	Female	CT: no
G1	Male	CT: 23.2	G7	Male	CT: 19.6
H1	Female	CT: no	H7	Female	CT: no

Take 8 male and female tumour FFPE tissue samples (2 sections each), extract DNA by MagPure FFPE DNA LQ Kit B (D6323) and MagMix 32 Extractor for automatic nucleic acid extraction. Cross adding male and female samples on the machine. Amply SRY gene for the DNA by real-time PCR. PCR results show no amplification on femal samples. So MagMix 32 Extractor keeps no cross contamination for different samples.

## Clinical samples extraction results by MagPure FFPE DNA/RNA Kit B(R6327B)

sample No.	Qty		Conc. ng/µl	A260/A280	Qubit ng	Fragment bp	sample No.	Qty		Conc. ng/µl	A260/A280	Qubit ng	Fragment bp
1	1	DNA	28.4	1.8	443	7500-15000	11	1	DNA	29	1.8	520	15000
		RNA	18.7	2.0	440				RNA	10.4	2.1	97	
2	3	DNA	6.7	1.9	37	7500-15000	12	3	DNA	68	1.8	1965	250-5000
		RNA	5.1	2.1	61				RNA	64.5	1.9	1188	
3	4	DNA	18.1	2.0	280	5000-15000	13	3	DNA	56.4	1.8	2513	15000
		RNA	9	2.1	213				RNA	78.7	2.0	2150	
4	6	DNA	21.8	1.8	348	5000-15000	14	4	DNA	61.2	1.8	547	250-7500
		RNA	11.9	2.1	272				RNA	220.8	2.0	3500	
5	7	DNA	19.4	1.8	307	5000-15000	15	4	DNA	49.8	1.8	347	1000-15000
		RNA	8.3	2.0	204				RNA	8.8	1.8	162	
6	8	DNA	36.2	1.8	670	7500-15000	16	4	DNA	202.4	1.8	3325	2500-15000
		RNA	25.4	2.1	492				RNA	78	1.8	3430	
7	1	DNA	44	1.8	642	2000-15000	17	5	DNA	220.7	1.9	2933	5000-15000
		RNA	22.9	2.0	480				RNA	82.5	2.0	1725	
8	1	DNA	103.4	1.8	1450	5000-15000	18	7	DNA	40.3	1.8	2261	15000
		RNA	11.7	2.3	85				RNA	18.2	1.9	347	
9	1	DNA	55	1.9	2450	5000-15000	19	8	DNA	20.3	1.9	233.25	5000-15000
		RNA	56.7	1.9	875				RNA	6.8	2.1	137	
10	1	DNA	29.4	1.9	1428	15000	20	9	DNA	12.2	1.8	66	5000-15000
		RNA	30.5	2.1	798				RNA	3.1	2.3	73	

Different clinical FFPE samples extracted by MagPure FFPE DNA/RNA Kit B (R6327B), and analyze by Nanodrop and Qubit.

Molecular detection and diagnosis has become a mainstream trend as fast development of molecular biology. Genomic DNA/RNA extractions from Blood samples uses widely in research and diagnostic areas. Magen R&D department developed various products from the previous samples to subsequent extractions of DNA/RNA. We supply a complete set of solutions for Blood DNA/RNA extraction includes column extraction, automatic extraction and solutions design for high-throughput sequencing genomic extraction.

## Product Guide

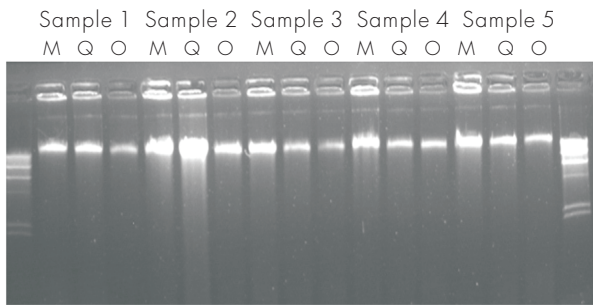
	Product Name	Cat#	Preps	Price (\$)	Features	Substitute Product
Column	HiPure Blood DNA Mini Kit (200µl)	D311102	50	99	● Isolation total DNA from 200µl blood, buffy coat, body fluids	qiagen 51104
		D311103	250	472		
	HiPure Blood DNA Midi Kit (2ml)	D3113-02	20	224	● Isolation total DNA from 2 ml blood, buffy coat, body fluids	qiagen 51183
		D3113-03	100	995		
	HiPure Blood DNA Maxi Kit (10ml)	D3115-02	10	174	● Isolation total DNA from 10 ml blood, buffy coat, body fluids	qiagen 51192
		D3115-03	50	622		
	HiPure Blood DNA 96 Kit (0.2ml)	D3117-02	4 x 96	298	● Isolation total DNA from 200µl blood, buffy coat, body fluids using 96 well bind plate	qiagen 69581
		D3117-03	20 x 96	1094		
	HiPure Blood RNA Kit	R416102	50	149	● Isolation total RNA from 1.5ml blood and cell suspension	qiagen 52304
		R416103	250	696		
	HiPure PX Blood RNA Kit	R416802	10	149	● Isolation total RNA from paxigene tubes	qiagen 762164
		R416803	50	681		
HiPure Liquidi RNA Kit	R416302	50	124	● Isolation total RNA from 0.25ml liquid Samples	qiagen217184	
	R416303	250	547			
Magnetic Beads	MagPure Fast Blood DNA Kit	D6310-01	48	119	● Isolation total DNA from 200µl blood, buffy coat, body fluids	qiagen 951336
		D6310-02	96	224		
		D6310-03	480	895		
	MagPure Blood DNA Kit	D6311-01	48	119	● Isolation total DNA from 200µl blood, buffy coat, body fluids	qiagen 940051
		D6311-02	96	224		
	MagPure Blood RNA Kit	D6311-03	480	895	● Isolation total RNA from 200~300µl blood, buffy coat, body fluids	
		R6611-01	48	286		
	MagPure PX Blood RNA Kit	R6611-02	96	525	● Isolation total RNA from paxigene Blood RNA Tubes	
R6612-01		48	310			
R6612-02	96	573				
	Solution	D331101	50 ml	99	● Economical isolation of DNA from blood using salt out method	qiagen Gentra 158389
SolPure Blood DNA Kit		D331102	300 ml	547		
D331103		1000 ml	1641			

Molecular detection and diagnosis has become a mainstream trend as fast development of molecular biology. Genomic DNA/RNA extractions from different Tissue/Cells samples uses widely in research and diagnostic areas. Magen R&D department developed various products from the previous samples to subsequent extractions of DNA/RNA. We supply a complete set of solutions for Tissue/Cells DNA/RNA extraction includes column extraction, automatic extraction and solutions design for high-throughput sequencing genomic extraction.

## Product Guide

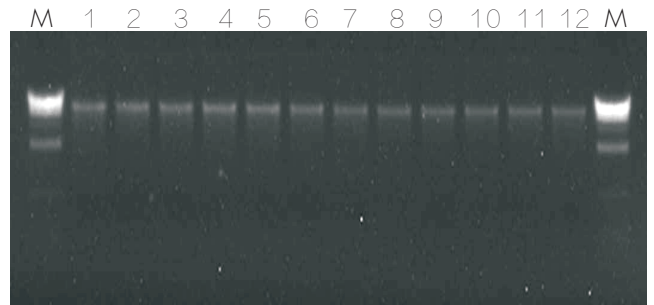
	Product Name	Cat#	Preps	Price (\$)	Features	Substitute Product
Column	HiPure Universal DNA Mini Kit	IVD3018	100	149		
		D301802	50	622	● Isolation total DNA from Tissue/Blood/Body fluid/Swab/Dry blood spots	
		D301803	250	249		
	HiPure Tissue DNA Mini Kit	D312102	50	124	● Isolation total DNA from tissue samples and culture cells	Qiagen 51304
		D312103	250	497		
	HiPure DNA Micro Kit	D312502	50	149	● Isolation total DNA from micro size samples Blood/Tissue/Cells	Qiagen 56304
		D312503	250	696		
	HiPure Tissue&Blood DNA Midi Kit (1g)	D3113-02	20	224	● Isolation up to 1 mg of total DNA from 1g Tissue	qiagen 51185
		D3113-03	100	995		
	HiPure Tissue&Blood DNA Maxi Kit (5g)	D3115-02	10	174	● Isolation up to 5mg of total DNA from 5 g Tissue	qiagen 51194
		D3115-03	50	622		
	Column	HiPure Universal RNA Kit	R4130-02	50	124	● Isolation RNA from biological sample using MagZol Reagent and Column
R4130-03			250	547		
HiPure Total RNA Kit		R4011-02	50	99	● Isolation RNA from Tissue and Culture cells	qiagen 74104
		R4011-03	250	448		
HiPure Total RNA Plus Kit		R4111-02	50	124	● Isolation RNA from Tissue and Culture cells using gDNA Removal Column	qiagen 74134
		R4111-03	250	547		
HiPure Total RNA Plus Kit B	IVD4121	50	348	● Isolation RNA from biological sample using gDNA Removal Column&DNase		
Magnetic Beads	MagPure DNA Micro Kit	IVD3101	200	696	● Isolation total DNA from micro size samples of Blood/Tissue/Cells	
	MagPure Universal DNA Kit	IVD3102	200	448	● Isolation total DNA from Blood/Tissue/Cells using magnetic particles	
	MagPure Universal RNA Kit	IVD3020	200	895	● Isolation total RNA from Blood/Tissue/Cells using magnetic particles	
	MagPure Total RNA Kit	R662201	48	348	● Isolation total RNA from Blood/Tissue/Cells using magnetic particles	
		R662202	96	597		
Solution	SolPure Tissue DNA Kit	D331201	1g	99	● Economical isolation of DNA from Tissue using salt out method	qiagen Puregene 158689
		D331202	5g	348		
		D331203	50g	3083		
	MagZol Reagent	R480101	100ml	80	● Isolation RNA from biological sample using Guandine/Phenol method	Life Trizol: 15596026
		R480102	200ml	149		

HiPure Universal DNA Kit (D3018) comparing with other brands



Use Magen HiPure Universal DNA Kit (D3018), Qiagen Kit and Omega Kit extracting 5 fresh human blood samples (200µl). Take 5% genomic DNA analyzing on 0.8% agarose gel. Results show that Magen kit get higher DNA yield.

Test results for HiPure DNA Micro Kit (D3125)(10µl blood)



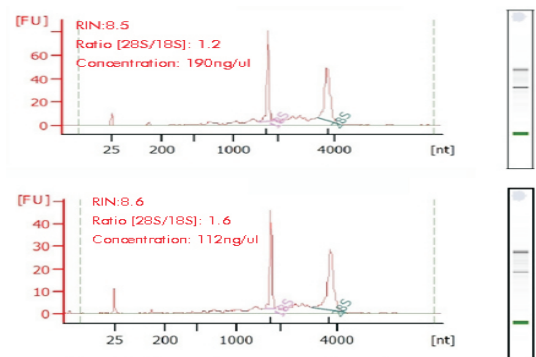
Use HiPure DNA Micro Kit extracting 10 fresh human blood samples(10µl). Take 50% purified DNA analyzing on 0.8% agarose gel. Results show that Magen kit gets stable and high yield DNA for micro size blood samples.

Test results for HiPure Blood DNA Midi Kit(D3113)

Blood	A260/280	A260/230	Yield(µg)
2 ml	1.82	1.92	60.9
2 ml	1.86	2.16	60.6
2 ml	1.92	1.99	38.9
2 ml	1.90	1.91	41.9
2 ml	1.78	2.08	45.8
2 ml	1.88	2.28	46.8
2 ml	1.82	2.12	45.1
2 ml	1.83	2.33	50.6

Use HiPure Blood DNA Midi Kit (D3113) extract 10 anticoagulant blood (2ml), and analyze DNA quality by Thermo Nanodrop 2000. Results show Magen kit gets high purity and high yield DNA from blood.

Test results for HiPure PX Blood RNA Kit(R4168)



Take 2 fresh blood samples (2ml), store in Paxigene Tube (Qiagen) for one week, then extract RNA by HiPure PX Blood RNA Kit. And analyze RNA quality by Aligent 2100. Results show Magen kit get high integrity of RNA from Paxigene tube.

HiPure Universal RNA Mini Kit (R4130) & MagZol Reagent (R4801)

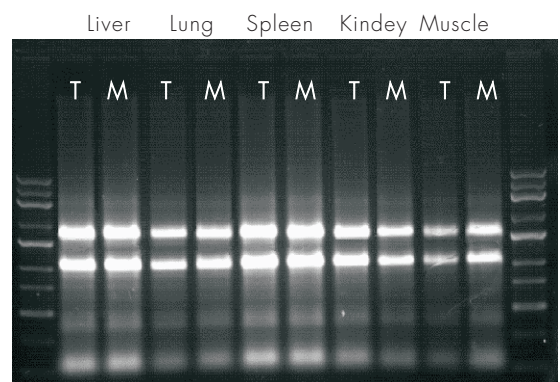
High purity total RNA extraction kit and reagent

RNA extraction results for different clinical samples

Sample	RNA µg	Conc µg/µl	RIN	28S/18S
Heart vales 1	1.52	38	8.0	1.9
Heart vales 2	2.42	80	7.4	1.3
Mesentery 1	4.13	129	8.1	1.8
Mesentery 2	0.73	23	8.2	1.6
Leaf fat 1	0.93	32	8.3	1.5
Leaf fat 2	1.23	41	8.3	1.5
Liver 1	31	1203	8.3	1.5
Liver 2	42	1158	8.3	1.5
Kidney 1	12	470	8.9	1.8
Kidney 2	10.8	401	9.1	1.6
Intestine 1	8.7	134	8.7	1.6
Intestine 2	8.9	178	8.9	1.6

Use HiPure Universal RNA Kit (R4130) extrating total RNA from 6 different clinical tissue samples. Quantitate RNA by Thermo Nanodrop 2000 and analyze RNA integrity by Aligent 2100.

MagZol Reagent Vs Trizol Reagent



T: Trizol (Life company) M: Magzol Reagent

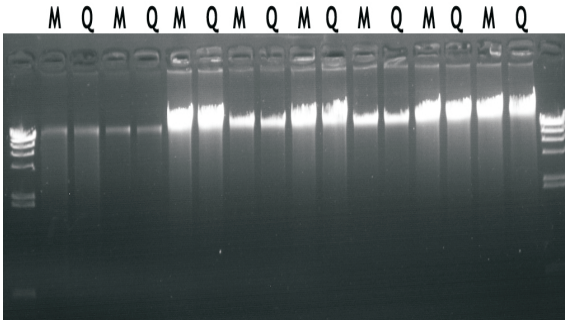
Use MagZol Reagent (R4801) and Life Trizol Reagent (15596026) extracting RNA from 5 different tissues of mouse. Take 1% RNA analyzing on 1% agarose gel. Results show that two reagents get smiliar RNA yield.



## MagPure Universal DNA LQ Kit (IVD3102) Extract DNA from tissue/cells/blood/saliva samples by magnetic beads

Blood DNA extraction-- MagPure Universal DNA LQ Kit Vs Qiagen BioSprint Blood DNA Kit

Dry blood spot DNA extraction results Magen(IVD3102) Vs Tiangen (DP344)

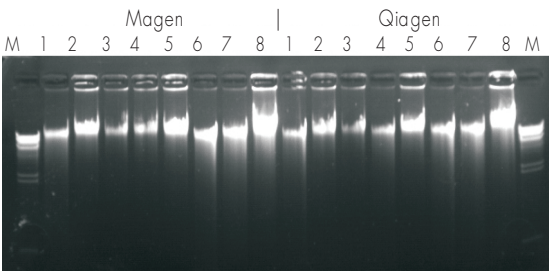


Company	Blood spot 5mm	Qubite Conc ng/μl	Nanodrop Conc ng/μl	Nanodrop		DNA (ng)
				A260/A280	A260/A230	
Tiagen	1pcs	5.3	15.2	1.6	0.7	265
Tiagen	1pcs	6.8	14.6	1.5	0.8	340
Tiagen	1pcs	6.4	16.0	1.6	1.1	320
Tiagen	1pcs	6.5	17.2	2.0	1.1	325
Magen	1pcs	8.4	11.0	1.8	1.4	420
Magen	1pcs	8.4	10.6	1.8	1.5	420
Magen	1pcs	8.6	10.6	1.8	1.5	430
Magen	1pcs	9.3	10.9	1.8	1.5	465

Use MagPure Universal DNA LQ Kit and BioSprint Blood DNA Kit(Qiagen) extracting 8 blood samples (200ul). Take 5% DNA analyze on 0.8% agarose gel. Machine used: KingFisher Flex

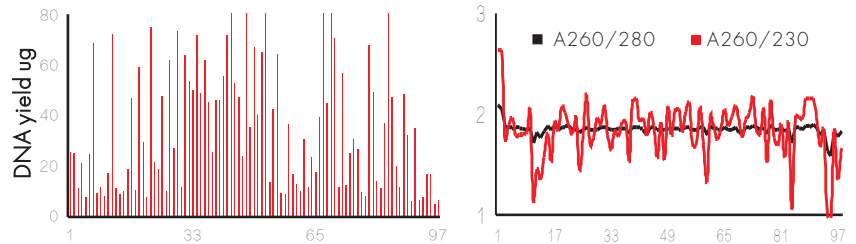
Take 8 pcs of 5mm dry blood spots (about 5ul blood/pcs), extracting DNA by MagPure Universal DNA LQ Kit and Tiagen kit. And analyze DNA by Nanodrop and Qubit.

## Tissue DNA extraction MagPure Universal DNA Kit Vs Qiagen Biosprint Tissue DNA Kit



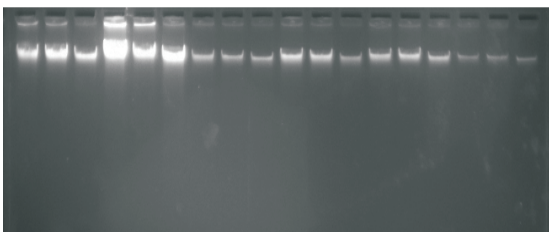
Use MagPure Universal DNA LQ Kit and BioSprint Tissue DNA Kit (Qiagen) extracting DNA from 8 different tissues of mouse (10mg). Take 5% DNA analyzing on 0.8% agarose. Extraction machine: KingFisher Flex 1: ear, 2: kidney, 3:skin, 4: tail, 5: liver, 6: spleen, 7: heart, 8:lung

## Pig tail DNA extraction results

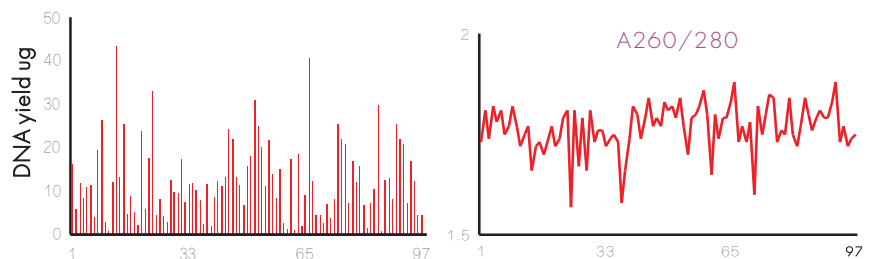


96 pig tail samples extracted by MagPure Universal DNA LQ Kit, and analyze DNA on Nanodrop. In the results, 80% samples get DNA yield above 10μg, and about 5% samples get 3~10μg. 95% DNA A260/280: 1.75~1.90. A260/230: 1.4~2.2. 100% success for downstream applications. Extraction machine: KingFisher Flex

## Salive DNA extraction-- flexible sample size, wide use



18 fresh salive samples (300μl include storage buffer) extract DNA by MagPure Universal DNA LQ Kit. And take 5% DNA analyze on 0.8% agarose gel. Extraction machine: KingFisher Flex



96 salive samples (300μl include storage buffer) store for 2 months, extract DNA by MagPure Universal DNA LQ Kit on KingFisher Flex. And analyze DNA quality by Nanodrop. In the results, 80% samples get DNA yield above 5μg, and 5% samples get 0.5~1ug. 95% DNA A260/280: 1.71~1.85. About 2~5% DNA A260/280 < 1.7.

Magen supply two series of viral nucleic acid extraction kits, HiPure and MagPure. HiPure Viral Nucleic Acid Kits based on silica spin column technology, extract viral DNA/RNA from plasma, serum, non-cells viral, ect biology samples rapidly. Users can get DNA/RNA from different samples in 30 min. Process contains lysis, column combining, elution, and at last get DNA/RNA by nuclease-free water elution.

MagPure Viral nucleic acid kit uses magnetic beads technology getting viral DNA/RNA from different source of biology samples in high-throughput. It can be used with both manual operation and automatic extraction workstation like BeckMek Tican, Hamilton, Cliper, Abbott M2000, ect. Magen also design pre-mixed reagent kits specially for KingFisher and Magen automatic extraction machines.

### Product Guide

	Product Name	Cat#	Preps	Price (\$)	Features	Substitute Product
Column	HiPure Viral RNA Kit	R4171-02	50	99	● Extract viral RNA from 140µl plasma/serum samples	qiagen 52904
		R4171-03	250	448		
	HiPure Viral RNA/DNA Kit	IVD4173	100	497	● Extract viral RNA/DNA from 200µl plasma/serum samples	qiagen 57704
	HiPure Viral RNA/DNA Kit B	IVD4175	100	497	● Extract viral RNA/DNA from 200µl plasma/serum samples	
	HiPure Pathongen DNA/RNA Kit	R417002	50	199	● Extract pathongen RNA/DNA from 200µl plasma/serum samples	
		R417003	250	845		
Magnetic Beads	MagPure Viral DNA/RNA Kit	IVD5412	200	199	● Extract viral DNA/RNA from 200µl samples by magnetic beads	Life: Am18365
		D571202	96	174		
	MagPure Bacterial/Viral DNA/RNA Kit	D571203	200	298	● Extract viral /Bacterial DNA/RNA from 200µl samples	
		D591202	96	348		
	MagPure Pathongen DNA/RNA Kit	D591203	200	597	● Extract pathongen DNA/RNA from 200µl samples	Life: A48310
		R666801	48	480	● Extract Viral DNA/RNA from 2.4ml samples	Chemagen: CMG-1403
		R666802	96	900		
Preact Kit	MagPure Viral DNA/RNA Kit	IVD5412-F-96	96	149	● IVD5412 Preact Kit for kingfisher Flex	
	MagPure Viral DNA/RNA Kit	IVD5412-TL-06	96	149	● IVD5412 Preact Kit for MagMix 32, smart 32	

### Virus Nucleic Acid Isolation Automatic Solution: MagMix 32 Extractor

MagMix 32 Extractor uses magnetic bar flapping and transferring technology, extracting nucleic acid automatically by program settings for different samples. Including process for lysing samples, nucleic acid binding on magnetic beads, eluting, magnetic beads transfer and isolation. It can process 1-32 nucleic acid samples (Tissue, Plant, Blood, Body fluid, Food, Pathogenic Microorganism, ect.) rapidly at the same time. This machine is widely used in clinical testing, routine scientific research, genomics analysis, disease control system, food safety inspection, forensic identification, ect.

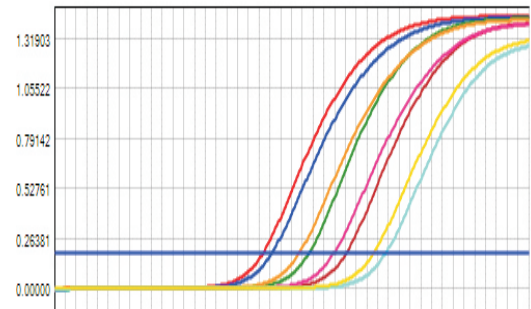
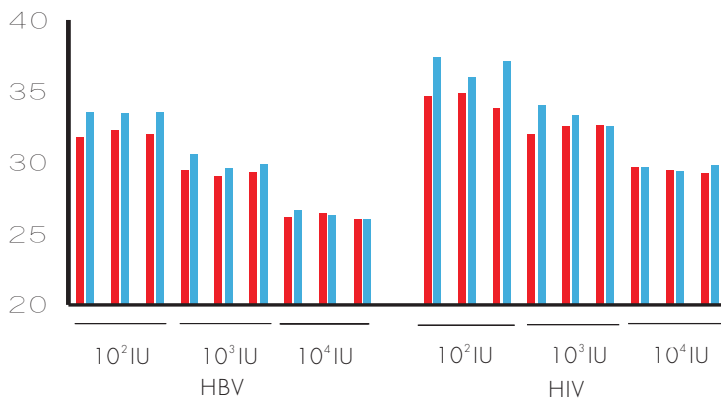


MagMix 32 Extractor



Pre-mixed reagents, only need to add sample

## HiPure Viral DNA/RNA Spin Kit (IVD4173) Column Kits



Add  $10^2$  IU,  $10^3$  IU,  $10^4$  IU HBV or HIV viral into 3 negative blood samples, extract viral DNA/RNA by Magen HiPure Viral DNA/RNA Spin Kit and D company kit. Then analyze DNA/RNA by real-time PCR with Daan company virus detection kit. Test result show that Magen kit has lower CT value than D company. Magen kit gets higher DNA/RNA yield.

Take 4 gradient HCV blood samples ( $10^2$  IU,  $10^3$  IU,  $10^4$  IU and  $10^5$  IU), extract nucleic acid by Magen HiPure Viral DNA/RNA Spin Kit and D company kit. Then analyze extracted nucleic acid by real-time PCR with Daan company virus detection kit. Test results show that Magen kit has low CT value than D company. Magen kit gets higher DNA/RNA yield.

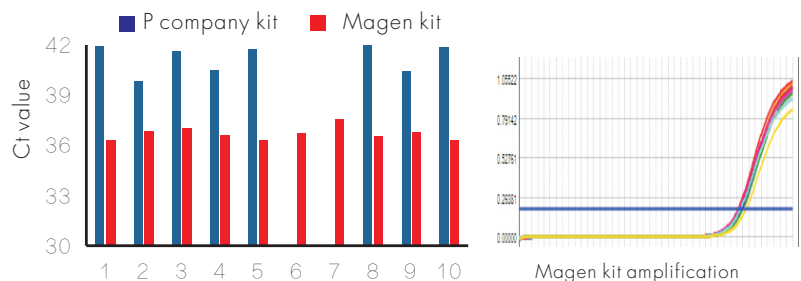
## MagPure Viral DNA/RNA Mini Kit (IVD5412) Magnetic Kits

### MagPure Viral DNA/RNA Kit VS Roche COBAS

Sample	Magen	Roche
1	97600	32650
2	12200	3198
3	12100	3473
4	non	non

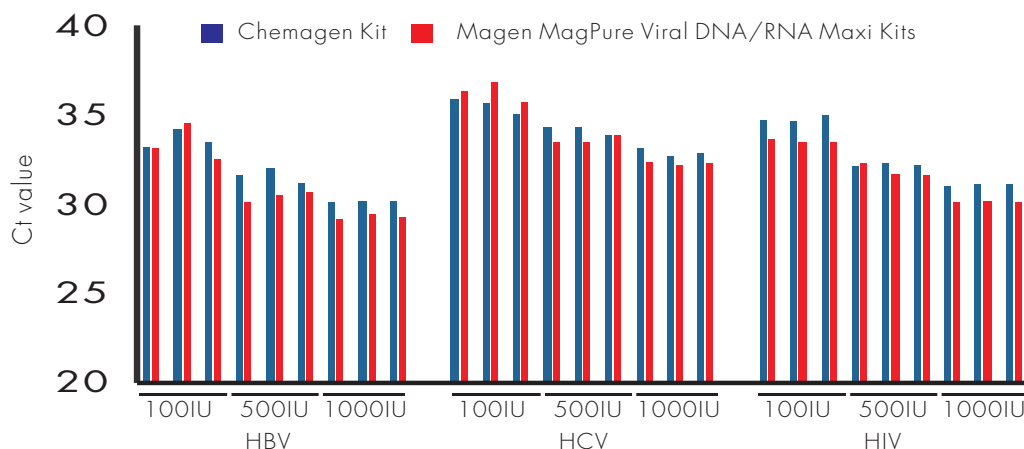
Use Magen MagPure Viral DNA/RNA Kit and Roche COBAS extract DNA/RNA from 4 HBV samples (0.2ml). Then analyze Viral Load by real-time PCR with Daan company HBV detection kit. Results show Magen kit has higher Viral Load than Roche, Magen kit gets higher DNA/RNA yield.

### Detection for low virus contraction (50IU/ml)



Take 200ul low copy HBV sample (50IU/ml), extract viral nucleic acid by Magen MagPure Viral DNA/RNA Kit and P company kit, and repeat 10 times. Then analyze viral load by Promega HBV detection Kit. Magen get 100% success on 10 samples, repeatability (ct value: CV%=1.4%, concentration: CV%=5.17%). P company get about 70% success, repeatability (ct value: CV%=2.14%, concentration: CV%=15.0%).

## MagPure Viral DNA/RNA Maxi Kit (D6668) Magnetic Kits for Blood Screening



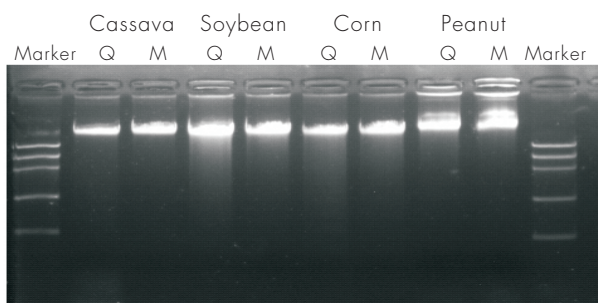
Add 100IU, 500IU and 1000IU of HBV/HCV/HIV into 9 negative blood samples (2.4ml). Use Magen MagPure Viral DNA/RNA Maxi Kit and Chemagen Viral Nucleic Acid Maxi Kit extract viral nucleic acid on Da3300 platform. Then detect viral nucleic acid by Real-time PCR with Daan company HBV, HCV, HIV detection kits. Test results show Magen kit has lower CT value than Chemagen kit. So Magen kit has higher nucleic acid yield.

Molecular plant breeding technology, select plant traits gene or genotype directly by nucleic acid, combine phenotype and genotype section, make efficient combination and directly selection of genome. This technology greatly improves the efficiency and accuracy of breeding. Magen has developed various products for plant DNA/RNA extraction. Safe plant DNA/RNA extraction kit (non phenol chloroform extraction), general plant DNA/RNA extraction kit for complicated samples such as polysaccharide polyphenol, customized magnetic beads kits (MagPure) suitable for Flap 32/48, KingFisher, ect automatic nucleic acid purification platform. Magen Plant DNA/RNA Extraction kits are widely used for conventional plant, commercial crops, seeds DNA/RNA extractions.

### Product Guide

	Product Name	Cat#	Preps	Price(\$)	Features	Substitute Products	
Column	HiPure SF Plant DNA Mini Kit	D3164-02	50	99	● Isolation gDNA from 100mg Plant/Fungal Sample	Qiagen #69104	
		D3164-03	250	448			
	HiPure SF Plant DNA 96 Kit	D3167-01	1 × 96	174	● Isolation gDNA from 50mg Plant/Fungal Sample using 96 bind plate	Qiagen #68163	
		D3167-02	4 × 96	746			
	HiPure Plant DNA Mini Kit	D316102	50	99	● Isolation gDNA from 150mg Extensive Plant/Fungal Sample		
		D316103	250	448			
	HiPure HP Plant DNA Maxi Kit	D316302	10	796	● Isolation gDNA from 2g Plant/Fungal Sample	Qiagen #69181	
		D316303	50	3729			
	Magnetic Beads	HiPure Plant RNA Mini Kit	R415102	50	149	● Isolation RNA from 100mg Plant/Fungal Sample	Qiagen #74904
			R415103	250	622		
HiPure Plant RNA Midi Kit		R415202	10	199	● Isolation RNA from 1g Plant/Fungal Sample	Qiagen #75144	
		R415203	50	870			
HiPure Fruit RNA Kit		R401402	50	149	● Isolation RNA from 100mg fruit, seed, leaf and etc.		
		R401403	250	622			
Magnetic Beads	MagPure Plant DNA LQ Kit	D635101	48	119	● Isolation DNA from 100mg Plant/Fungal Sample using magnetic beads		
		D635102	96	224			
		D635203	480	995			
	MagPure Seed/Plant DNA LQ Kit	D635201	48	119	● Isolation DNA from 100mg easy to grind Plant/Fungal Sample, seed samples using magnetic beads		
		D635202	96	224			
		D635203	480	995			

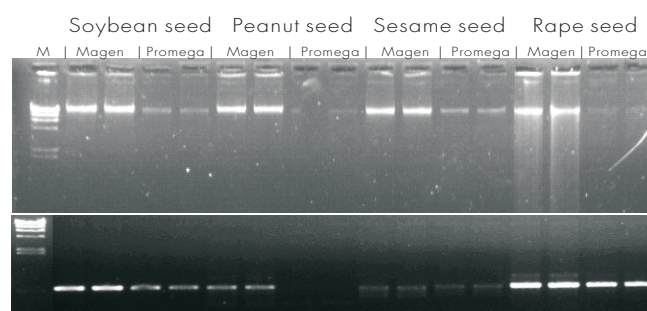
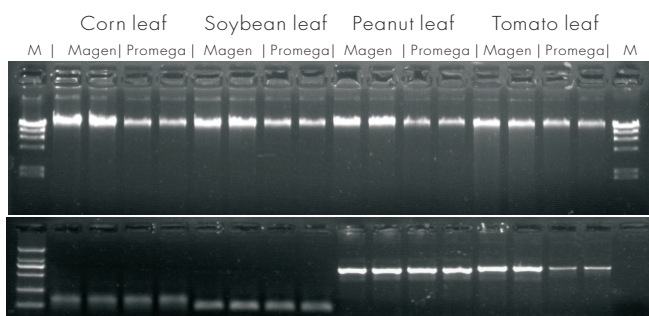
## HiPure SF Plant DNA Mini Kit (D3164) Vs Qiaamp DNeasy Plant Kit (74904)



Sample	A260/280	A260/230	Yield (µg)	Company
Cassava	1.84	1.74	7.2	Qiagen
Cassava	1.85	1.43	7.7	Magen
Soybean	1.87	2.22	8.1	Qiagen
Soybean	1.83	1.99	9.7	Magen
Corn	1.82	2.10	5.6	Qiagen
Corn	1.84	2.25	6.4	Magen
Peanut	1.94	2.14	18.3	Qiagen
Peanut	1.94	2.29	20.4	Magen

Use Magen HiPure SF Plant DNA Kit and Qiagen Plant DNA Kit extract DNA from 4 different plant leaves. Take extracted DNA (5µl) running on 1% agarose gel. Analyze DNA yield and purity by Nanodrop. Test results show Magen and Qiagen kits get similar quality.

## MagPure Plant DNA KF Kit (D6352) Vs Promega Wizard Magnetic Plant DNA Kit



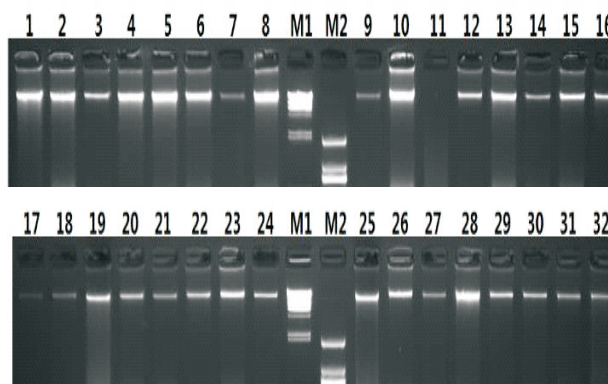
Use MagPure Plant DNA Kit and Promega Wizard Magnetic Plant DNA Kit extract DNA from 4 different plant leaves and seeds. Take extracted DNA (5µl) running on 1% agarose gel. Results show Magen kit gets better DNA yields.

## MagPure Plant DNA LQ Kit (D6352) - Fast/Simple/High-throughput plant DNA extraction

Case for high throughput tobacco leaf DNA extraction: take 50~150mg tobacco leaf into 2ml thick wall Eppendorf tube and add 2 grinding beads and 800ul Buffer SOL/2ul RNase Solution. Transfer the tube to grinding machine, grind 30 sec on 50HZ and repeat once. Take out sample and stay in 65~70°C oven for 10~15 min. Centrifuge 3 min at 10,000~13,000 x g. Transfer 400ul supernatant into deep hole plate of KingFisher Flex machine and follow the instructions. Over one thousand samples can be process in a day using with KingFisher Flex machine.

A260/230	A260/280	Yield(µg)
1.42	1.82	5.50
1.52	1.81	4.50
1.42	1.81	11.5
1.56	1.78	9.8
1.61	1.75	8
1.01	1.8	8.6
1.32	1.81	8.9
1.56	1.83	5
1.48	1.82	5.6
1.68	1.78	7.5
1.52	1.75	8.5
1.43	1.86	16.5
1.52	1.89	13.2
1.4	1.72	15
1.38	1.85	7.2
1.26	1.8	6.5

Innovated wet grinding technology, without liquid nitrogen, safe and fast



Take 32 DNA (5µl) extracted from tobacco leaf analyzing on 1% agarose gel. Results show that DNA extracted by wet grinding process keeps good quality, no degradation.

Microbes and their metabolites directly or indirectly affect human health. Study and analyze microbial characteristics of soil/stool/water is important to provide guidance to human health and environmental protections. Microbes have great difference between species and impurities, so it is difficult to extract microbial nucleic acid with standard kits. Magen R&D has developed various kinds of kits for different samples with high quality inhibitor removing solutions. Magen kits includes Bacterial/Fungal Yeast/Stool/Soil/Water/ samples DNA/RNA extraction by column extraction (HiPure) or high throughput magnetic beads extraction (MagPure).

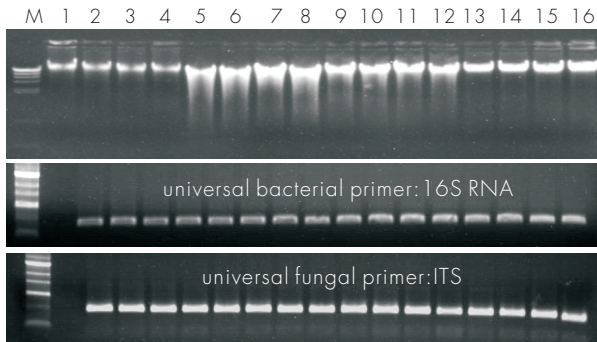
### Product Guide

	Product Name	Cat#	Preps	Price (\$)	Features	Substitute Product
Column	HiPure Bacterial DNA Kit	D314602	50	249	● Isolation gDNA from bacterial Culture, Food, Fermentations, body fluids.	
		D314603	250	1119		
	HiPure Stool DNA Kit	D314102	50	298	● Isolation gDNA from 100~200mg Stool Samples	qiagen 51604
		D314103	250	1243		
	HiPure Soil DNA Kit	D3142-02	50	298	● Isolation gDNA from 250-500mg Soil Samples	Qiagen 47014
		D3142-03	250	1243		
	HiPure Soil DNA 96 Kit	D3144-01	1x96	597	● Isolation gDNA from 250-500mg Soil Samples by using 96 bind Plate	
		D3144-02	4x96	1989		Qiagen 129554
	HiPure Microbiome DNA Kit	D3148-02	10	348	● Isolation gDNA from biological sample and remove host DNA	
		D3148-03	50	1641		Qiagen 51704
	HiPure Stool DNA Kit	IVD3141	50	348	● Isolation gDNA from 100~200mg Stool Samples	
	HiPure Microbiol RNA Kit	R4182-02	50	249	● Isolation Total RNA from bacterial and yeast cell	
		R4182-03	250	1144		
	HiPure Stool RNA Kit	R4185-02	50	298	● Isolation Total RNA from stool sample	
		R4185-03	250	1343		
	HiPure Soil RNA Kit	R4183-02	50	298	● Isolation Total RNA from Soil Samples	qiagen 12866-25
		R4183-02	250	1343		
Magnetic Beads		D636401	48	239		
	MagPure Stool DNA KF Kit	D636402	96	448	● Isolation gDNA from 100~200mg Stool Samples	
		D636403	480	2138		
		D635601	48	239		
	MagPure Soil DNA KF Kit	D635602	96	448	● Isolation gDNA from 2500~500mg Stool Samples	qiagen 47109
		D635603	480	2138		
		D667401	48	334		
	MagPure microbial DNA Rich Kit	D667402	96	646	● Isolation gDNA from biological sample and remove host DNA	
	D667403	480	2864			

## HiPure Soil Nucleic Acid Kits

HiPure Soil Nucleic Acid Kits use silica spin column purification technology and unique humic acid adsorbents, extract high purity and high yield DNA/RNA rapidly from different soil or environmental samples, including fungal, bacterial, and other microbial DNA/RNA.

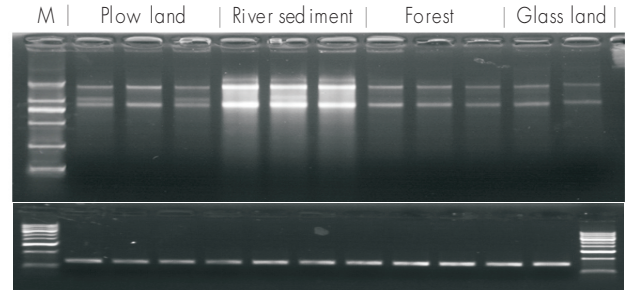
### HiPure Soil DNA Kit (D3142)



Extract DNA from 16 different soil samples (50mg) by HiPure Soil DNA Kit. Take 10% DNA analyze on 0.8% agarose gel. M: Lambda DNA/Hind III Marker. Take 2% DNA as template, amplify bacterial 16S RNA and fungal ITS gene by PCR, then analyze DNA (5µl PCR mixtur) on 1.8% agarose gel. M: DL2000 DNA Marker.

- Lane 1~4: soil from river sediment
- Lane 5~8: soil from different forest
- Lane 9~12: soil from glass land
- Lane 13~16: soil from plow land

### HiPure Soil RNA Kit (R4183)



Extract RNA from 4 different soil samples (500mg) by HiPure Soil RNA Mini Kit . Take 1.5% RNA analyze on 1% agarose. M: DL5000 DNA Marker

### HiPure Soil Nucleic Acid Kits Selection Guide

Product Name	Cat#	Soil Amount	Column
HiPure Soil DNA Kit	D3142	0.5g	Mini Column
HiPure Soil DNA Maxi Kit	D3143	10 g	Maxi Column
HiPure Soil RNA Kit	R4182	0.5 g	Mini Column
HiPure Soil RNA Midi Kit	R4183	3 g	Midi Column
HiPure Soil DNA&RNA Kit	R5117	3g	Midi Column

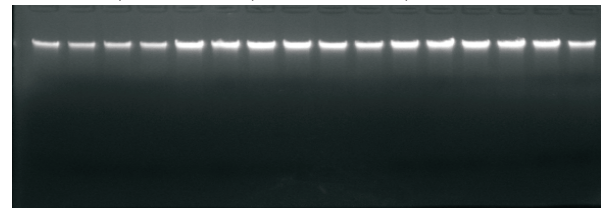
## MagPure Soil DNA KF Kit(D6356)

MagPure Soil DNA Kits use magnetic bead purification technology and unique humic acid adsorbents, extract high purity and yield DNA/RNA rapidly from different soil or environmental samples, including fungal, bacterial and other microbial DNA/RNA. Kits can be used with different automatic nucleic acid purification machines like KingFisher Flex.

### Test for Magen #MD5116 working with Kingfisher Flex

A260/230	A260/280	Conc ng/ul	DNA ug	Program
1.2	1.6	33.7	4.0	single hole
1.2	1.7	32.4	3.9	supernatant: 1 x 400µl
1.2	1.7	38.9	4.7	magnetic bead: 1 x 40µl
1.3	1.6	40.3	4.8	
1.1	1.7	69.9	8.4	double hole
1.5	1.7	72.5	8.7	supernatant: 2 x 400µl
1.5	1.8	83.2	10.0	magnetic bead: 1 x 40µl
1.4	1.7	83.5	10.0	
1.4	1.9	60.6	7.3	double hole
1.4	1.7	63.5	7.6	supernatant: 2 x 400µl
1.4	1.7	89.6	10.7	magnetic bead: 2 x 40µl
1.3	1.7	96.4	11.6	
1.5	1.7	86.0	10.3	double hole
1.4	1.7	80.9	9.7	supernatant: 2 x 400µl
1.5	1.6	64.3	7.7	extract by spin column
1.4	1.7	56.1	6.7	

Extraction:	magnetic	magnetic	magnetic	spin column
Sample:	single	double	double	double
Magnetic:	40µl	40µl	2x40µl	1 column



Use Magen MagPure Soil DNA Kit lyses one soil sample, get supernatant and extract DNA on KingFisher Flex. This test goes with two programs and control by Magen column extraction kit (D3142).

### Extract DNA/RNA/Protein from one sample

DNA and RNA purification technologies mainly include phenol-chloroform extraction, ion exchange, salting out, glass milk and silica gel column. However, these technologies often extract only one kind (DNA or RNA) and waste the samples. When sample is limited, we usually need to separate DNA and RNA from one sample. Extracting DNA, RNA and Protein separately from one sample technology was limited in the market. In 1993, Chomczynski improved the one-step RNA extraction method (Trizol Reagent), he extracted DNA, RNA and protein using only one solution. But the DNA purity was very low and extremely hard to dissolve (in 8mM NaOH solution), serious DNA fragmentation and can get only 10kb DNA. The DNA quality was difficult to meet downstream application requirements. Magen develop AllPure extraction kits with spin column purification technology, can separate DNA, total RNA and protein from one sample rapidly and efficiently.

Product Name	Cat#	Price (\$)	Product Name	Cat#	Price (\$)
Co-Isolation RNA/DNA from <30mg tissue or <1 x 10 <sup>7</sup> cells			Co-Isolation RNA/DNA from FFPE Sample		
AllPure DNA&RNA Kit	R511102(50)	238	AllPure FFPE DNA&RNA Kit	IVD5116(50)	298
	R511103(250)	1118	MagPure FFPE DNA& RNA Kit	IVD3026(200)	1492
Co-Isolation RNA/DNA from <20mg fiber-rich tissues			MagPure FFPE DNA&RNA Kit B	D632701(48)	398
AllPure Fibrous DNA&RNA Kit	R511402(50)	258		D632702(96)	696
	R511403(250)	1218			
Co-Isolation RNA/DNA/Protein from <30mg tissue or <1 x 10 <sup>7</sup> cells					
AllPure RNA&DNA&Protein Kit	R5211-02(50)	258			
	R5211-03(250)	1218			

### miRNA Purification

With the discovery of more and more miRNA families and their important role in gene regulation, the characteristics, mechanism and biological function of miRNA as well as RNAi technology have become Hotspot of biological research. And Small interfering RNA (SiRNA) plays an important role in the gene therapy of tumor. The standard RNA purification technology is mainly for big size RNA(>200nt), and miRNA, especially miRNA <25nt, usually lost or low recovery in RNA purification and cause failure in downstream applications. Experiment results show that removing influence of big size RNA, can significantly improve miRNA analysis results. Magen provides targeted products for miRNA extraction from various samples.

#### Co-Isolation or Enrichment miRNA (Removal of large RNA)

Product Name	Cat#	Price (\$)
Extract RNA and miRNA from <100mg sample (universal)		
HiPure Universal miRNA Kit	R431002(50)	165
	R431003(250)	778
Extract RNA and miRNA from Tissue and Cell(Phenol Free)		
HiPure Cell miRNA Kit	R431102(50)	165
	R431103(250)	778
Extract total RNA (include miRNA) from 0.3~0.6ml serum/plasma		
HiPure Liquid RNA Kit	R414302(50)	178
	R414303(250)	817
Extract total RNA (include miRNA) from 1~5ml serum/plasma		
HiPure Serum/Plasma RNA Midi Kit	R431602(50)	458
	R431603(250)	1998

#### Isolation Total RNA included miRNA

Product Name	Cat#	Price (\$)
Extract RNA and miRNA from serum and Plasma		
MagPure Serum RNA Kit	R662802(96)	398
	R662803(200)	696



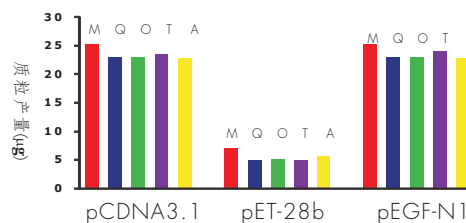
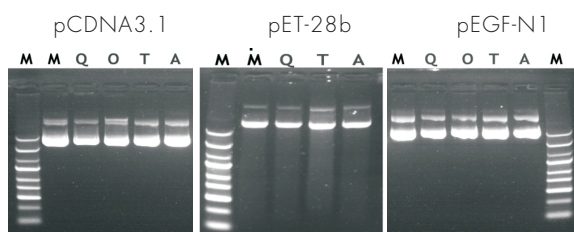
Plasmid DNA extraction are basic experients in molecular biology area. And is also basic skills for every scientific researcher. With rich experience in this area, Magen R&D department has developed a series of plasmid DNA extraction products for 1-1000ml plasmid, non-endoxotin, and automatic purification platform. Magen provide products with silica spin column extraction technology and magnetic beads automatic extraction technology. Customers can choose the right product according their needs.

## Product Guide

	Product Name	Cat#	Preps	Price (\$)	Features	Substitiite Product
Column	HiPure Plasmid Mini Kit (1-5ml)	P100102	100	60	● Up to 35ug Plasmids from 1~5ml cultures.	Qiagen #27104
		P100103	250	150		
	HiPure Plasmid Mini Kit II (1.5ml)	P100202	50	60	● Up to 70ug Plasmids from 5~15ml cultures	
		P100203	250	250		
	HiPure Fastfilter Plasmid Plus 96 Kit	P1116-02	4 x 96	550	● Up to 20ug Plasmids from 1.3~5ml cultures using 96 Bind Plate	Qiagen 16181
		P1116-03	20 x 96	2400		
	HiPure Fastfilter Plasmid Midi Kit (50ml)	P101302	25	380	● Up to 250ug Plasmids from 50ml cultures using Midi Column	Omegabiotek: D6905-03
		P101303	100	1250		
	HiPure Fastfilter Plasmid Maxi Kit (200ml)	P101402	10	200	● Up to 1mg Plasmids from 200ml cultures using Maxi Column	Omegabiotek: D6924-03
		P101403	50	900		
	HiPure Plasmid EF Mini Kit (1.5ml)	P115402	50	99	● Low endotoxin Plasmid, up to 70µg using mini Column	
		P115403	250	450		
	HiPure Plasmid EF 96 Kit (1-5ml)	P115702	4 x 96	650	● Up to 20ug Plasmids from 1.3~5ml cultures using 96 Bind Plate	
		P115703	20 x 96	2800		
HiPure Plasmid EF Midi Kit (50ml)	P1231-02	50	530	● endotoxin Free Plasmid, up to 750µg using mini Column	Qiagen #12863	
	P1231-02B	50	580			
HiPure Plasmid EF Maxi Kit (150ml)	P115602	10	160	● endotoxin Free Plasmid, up to 1mg from 150ml Cultures	Omegabiotek: D6926-02	
	P115603	50	750			
HiPure Plasmid EF Mega Kit (500ml)	P111602	10	300	● endotoxin Free Plasmid, up to 5mu from 500ml Cultures		
	P111603	50	1250			
Magnetic Beads	MagPure Plasmid Mini Kit	P181102	100	60	● Multiple sample extraction using magnetic beads from 1.3ml cultures	Beckman A37064
		P181103	500	240		
		P181104	5000	2200		
	MagPure Plasmid EF Mini Kit	P181402	100	115	● Multiple sample extraction using magnetic beads from 1.3ml cultures	Omegabiotek: M125801
		P181403	500	497		
		P181404	5000	4208		

### HiPure Plasmid Micro Kit (1-5ml) Extraction high purity DNA from 1~5ml culture (P1001)

HiPure Plasmid Kits use classical alkaline lysis and silica spin column purification technology, extract high purity plasmid DNA from overnight culture such as E coli (Dh5 $\alpha$ , Jm109). Users can complete multiple samples extraction in 30~60 min. Purified plasmid DNA can be directly used for downstream like sequencing, restriction enzyme digestion, PCR, Blotting, etc.

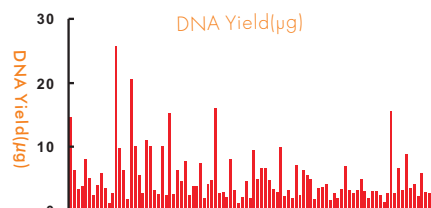
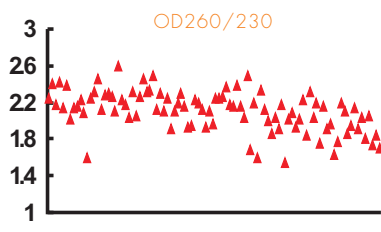
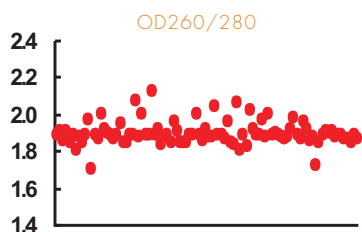


Use different companies plasmid DNA mini kit extracting 3 different plasmid cultures (3ml). Analyze plasmid DNA (1 $\mu$ l) on 1% agarose gel and Nanodrop. Test results show the four kits get similar DNA yield, Magen in a little higher.

M: Magen, Q: Qiagen, T: Tiangen, O: Omega, A: Axygen.

### MagPure Plasmid LQ Kit (P1811) - High throughput Plasmid DNA extraction by magnetic beads

MagPure Plasmid Mini Kits uses magnetic bead purification technology, extract high purity plasmid DNA, BAC, Cosmid, ect from bacterial culture. Purified plasmid DNA can be used directly for automatic sequencing, chip analysis and other applications. This kit can be directly used with different companies pipetting station or nucleic acid extraction instrument, complete 20~50 pieces of 96 well plate per day. In addition, we also provide manual protocol, 1 person can finish up to 10~30 pieces of 96 well plate in one day, greatly save time and cost.



Use MagPure Plasmid Mini Kit (P1811) extracting DNA from 96 different plasmid samples. And analyze DNA by Nanodrop 2000.

A sequencing company (our customer) provide us a feedback that our kit reach 99% success in 200,000 plasmid samples extraction.

Stable quality with different batches kits.

DNA/RNA Clean-up are basic experients in molecular biology area. And is also basic skills for every scientific researcher. With rich experience in this area, Magen R&D department has developed a series of nucleic acid clean up products. Magen provide products with silica spin column extraction technology and magnetic beads automatic extraction technology. Customers can choose the right product according their needs.

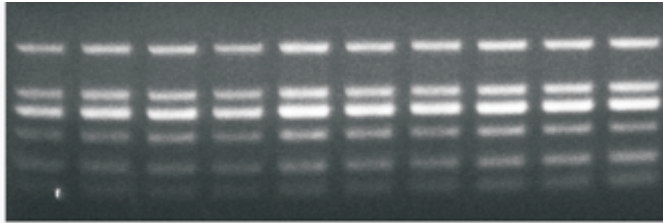
## Product Guide

	Product Name	Cat#	Preps	Price (\$)	Festures	Substitiite Product
Column	HiPure Gel DNA Micro Kit	D211002	100	70	● DNA Clean Up from agarose gel with low volume elute (10ul)	qiagen 28704
		D211003	250	165		
	HiPure Gel DNA Mini Kit	D211102	100	60	● DNA Clean Up from agarose gel	
		D211103	250	150		
	HiPure PCR Pure Mini Kit	D212102	100	60	● DNA Clean Up from PCR, Enzyem reactions	qiagen 28104
		D212103	250	150		
	HiPure DNA Clean Up Kit	D214102	100	60	● DNA Clean Up from PCR, Enzyem reactions, rude gDNA products	
		D214103	250	150		
	HiPure DNA Clean Up 96 Kit	D212202	4 x 96	300	● DNA Clean Up from agarose gel&reactions using 96 bind plate	
		D212203	20 x 96	1400		
HiPure RNA Clean Up Kit	R214202	50	120	● RNA Clean Up from Enzyme reactions, rude RNA Products	qiagen 74204	
	R214203	250	430			
Magnetic Beads	MagPure Gel DNA Kit	D500101	100	75	● DNA Clean Up from agarose gel using magnetic particles	
		D500102	500	348		
		D500103	5000	3232		
	MagPure DNA Clean Up Kit	D500301	100	65	● DNA Clean Up from PCR, enzyme reactions using magnetic particles	
		D500302	500	298		
		D500303	5000	2735		
	MagPure A5	BAP50	50ml	273	● DNA Clean Up from PCR&enzyme reactions using size selection beads	agencourt: Ampure
		BP-50	50ml	298		
	MagPure A4 XP	BP500	500ml	2735	● DNA Clean Up from PCR&enzyme reactions using size selection Speed beads	Beckmen: Ampure XP
		BCS50	50ml	796		
	CleanSeq Beads	BCS500	500ml	7459	● Bigdye terminator removal using magnetic beads	Beckmen: A29154
		BCC50	50ml	547		
	RNA_Clean Beads	BCC500	500ml	4973	● RNA Clean Up from enzyme reactions using beads	Beckmen: A29154
		BS5	5ml	75		
	MagSelect XP	BS50	50ml	348	● DNA Clean Up from enzyme reactions using size selection beads	Beckmen SPRIselect
		Bs500	500ml	2984		

### MagPure Gel Pure DNA LQ Kit (D5001) - High recovery of DNA from gel and Buffer by magnetic beads

MagPure Gel Pure DNA Kit is specially designed for bulk amount gel DNA purification. This kit uses superparamagnetic particle purification technology, Recover 100bp~20Kbp DNA fragments from 100~300mg agarose gel in high recovery yield (85%). Purified DNA can be directly used in sequencing, chip analysis and other applications.

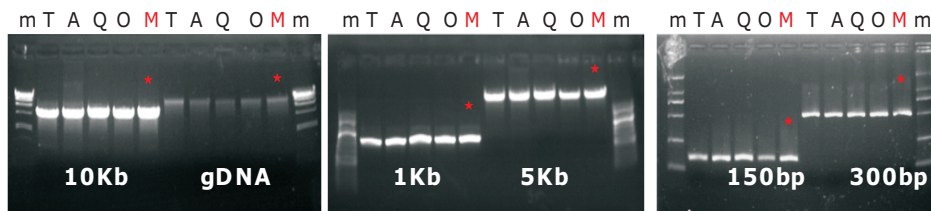
60% | 80% | Column | 100mg | 200mg | 300mg |



Take 5 $\mu$ l 100bp DNA Marker running on 1% agarose gel for 5 min. Cut 100mg/200mg /300mg agarose gel (including DNA marker) and extract DNA fragments by HiPure Gel Pure DNA Mini Kit and MagPure Gel Pure DNA LQ Kit. Results show same results on 100/200/300mg gel, all get over 80% recovery yield and column kit gets higher yield than magnetic bead kit. A sequencing company (our customer) provide us a feedback that our kit reach 99% success in 50,000 pcs agarose gel extraction. Stable quality with different batches kits

### HiPure Gel Pure DNA Mini Kit - High recovery of DNA from agarose gel (D2111)

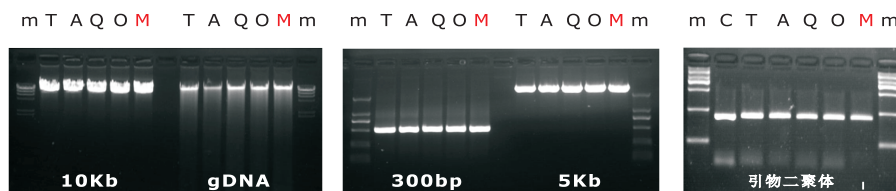
HiPure Gel Pure DNA Kits use silica spin column purification technology, extract high yield DNA fragments from different concentration agarose gel. Users can finish multiple DNA clean up in 1.5 min. Purified DNA can be directly used for downstream applications like sequencing, restriction enzyme digestion, PCR, Blotting, ect.



Different DNA fragments runned on 1% agarose gel electrophoresis. Then use different companies gel DNA extraction kits extracting DNA from agarose. M: Magen, Q: Qiagen, T: Tiangen, O:Omega, A:Axygen

### HiPure PCR Pure Kits - High recovery of DNA from PCR mixture (D2121)

HiPure PCR Pure Kits use silica spin column purification technology, extract high yield DNA fragments from different size of PCR reaction mixtures. Fast extraction finish in 1.5 min. Add binding buffer into PCR mixture, mix and transfer to spin column for DNA binding, but primer dimer/primer/salts will not be adsorbed and remove by flowthrough. Wash the columns with two low salt solution to remove other impurities, Elute the column by nuclease-free water, and get the purified DNA at last.



PCR reaction mixtures with different fragments purified by 5 companies PCR purification kits, then analyze purified DNA by agarose gel. Test results show 5 companies kits get similar DNA yield for PCR mixture. But when extracting from PCR mixtures with primer dimers, Magen HiPure PCR Pure Kit gets better quality in removing primer dimers completely.

Once the biological collection is completed, the cells will change from living cells to dead cells. Cells and organelles inside cells will break down, and nucleic acids, nucleases and proteases will be released. When the substance is mixed together, nucleic acids and proteases degrade. The traditional method is to preserve the integrity of cells or inactivate enzymes by cryopreservation or ultra cryopreservation. Magen has developed a series of room temperature preservation reagents, which can prevent the degradation of DNA and RNA in biological samples.

Cat.No	Product Name	Package	Price	Sample	Usage
P8010	Tissue RNA Preserve Tubes (2ml)	100	149	100mg Tissue	Preserve Tissue RNA, DNA, Protein at 15-25oC for 6 days, 2-8oc for 30 days, Long term at -20-80oC.
P8011	Tissue RNA Preserve Tubes (5ml)	100	249	500mg Tissue	
P8020	Tissue DNA Preseve Tubes (2 ml)	100	149	100mg Tissue	Preserve Tissue DNA at 15-25oC for 90 days, 2-8oc for 180 days, Long term at -20.
P8021	Tissue DNA Preseve Tubes (5ml)	100	249	500mg Tissue	
P8030	Saliva DNA Preserve Tubes (5ml)	10	50	2ml Saliva	Preserve 2ml Saliva DNA at 15-25oC for 1 year
P8031	Saliva DNA Preserve Tubes (5ml)	100	348	2ml Saliva	
P8035	Swab DNA Preserve Tubes (2ml)	20	60	Swab	Preserve Swab DNA at 15-25oC for 1 year
P8036	Swab DNA Preserve Tubes (2ml)	100	174	Swab	
P8040	Viral Nucleic Acid Preserve Tubes (5ml)	20	70	Liquid sample	Preserve Swab/Liquid Viral DNA/RNA at 15-25oC for 14 days, Long term at -20-oC
P8041	Viral Nucleic acid Preserve Tubes (5ml)	100	249	&Swab	
P8050	Stool DNA Preserve Tubes (2ml)	20	99	200mg Stool	Preserve Stool DNA at 15-25oC for 14 days, Long term at -20oC
P8051	Stool DNA Preserve Tubes (5ml)	100	398	500mg Stool	
P8060	Blood RNA Preserve Tubes (10ml)	10	60	2.5ml Blood	Preserve 3ml Blood RNA at 2-8oC for 3 days, Long term at -20oC
P8061	Blood RNA Preserve Tubes (10ml)	100	497	2.5ml Blood	
P8071	Circulating DNA Preserve Tubes (10ml)	100	497	10ml Blood	Preserve Circulating DNA from 10ml Blood RNA at 15-25oC for 14 days
P8081	FTA Card	100	124	100ul Blood	
P8310	RNASafer Reagent	500ml	373		
P8320	Saliva DNA Reagent	500ml	249		
P8330	Stool DNA Reagent	500ml	323		
P8340	RNASafer LS Reaegnt	500ml	249		
P8350	Viral Nucleic acid Reagent	500ml	249		

## MagMix 32 Extractor

MagMix 32 nucleic acid extractor uses magnetic rod patting and transferring to automatically lyse the sample to be detected under appropriate conditions, combine nucleic acid with magnetic beads, elute and release, transfer and separate magnetic beads to realize separation and purification of nucleic acid from the sample, which is simpler and faster than other nucleic acid extraction methods. The instrument can extract 1-32 samples at the same time. The user can edit the experimental program, monitor the experimental state, switch the ultraviolet lamp for disinfection and other functions by simple operation of the touch screen. It has the characteristics of simple operation, fast extraction and reliable results. Mag Auto 32 nucleic acid extractor uses a 96-hole deep-hole plate as extraction consumables, and the bottom of the deep-hole plate is fully contacted with the heating module, thus greatly improving the temperature uniformity between the holes, thereby reducing the difference between the holes caused by extraction.

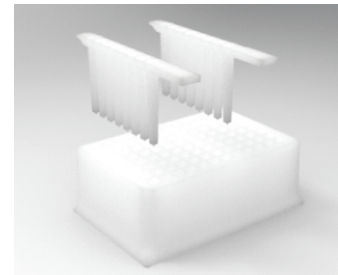
MagMix 32 nucleic acid extractor can rapidly extract DNA and RNA from animal and plant tissues, blood, body fluids, food, pathogenic microorganisms and other samples with corresponding magnetic bead nucleic acid extraction reagents. The extractor is used for nucleic acid extraction and purification of biological samples, and is suitable for clinical detection, routine scientific research, genomics analysis, disease control system, food safety inspection, forensic identification and other fields.

### Intended use

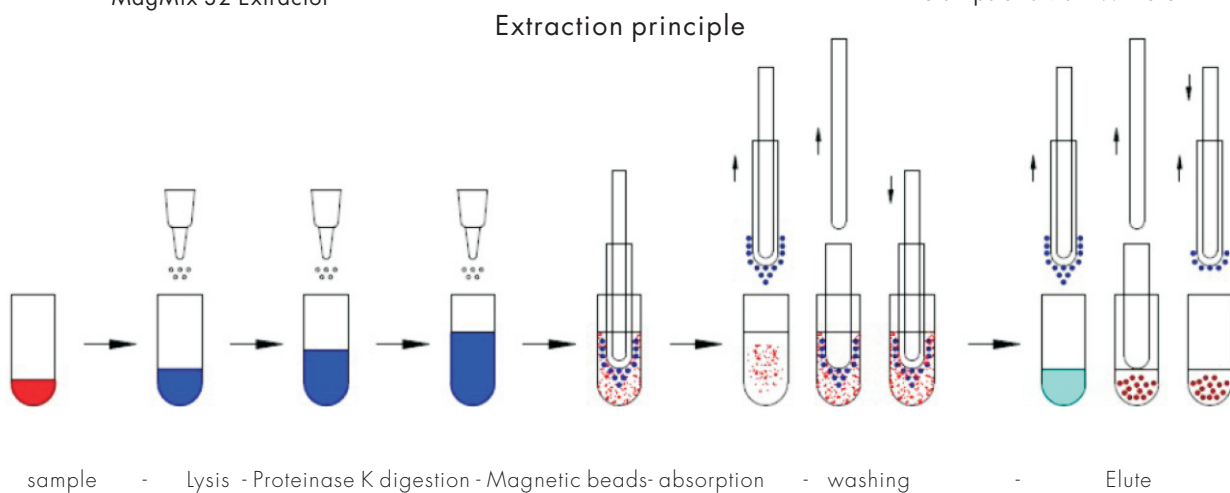
With the corresponding magnetic beads method and nucleic acid extracting reagent, this instrument can rapidly extract DNA and RNA from plant and animal tissue, body fluid, blood, food and pathogenic microbes samples. The instrument is suitable for nucleic extraction and purification of biological samples.



MagMix 32 Extractor



8 strips and 96 DW Plate



## Characteristic of the instrument

1. **Screen operation:** large full color screen, touch operation, easy to use.
2. **Temperature control:** custom cracking and elution temperature.
3. **Free programm:** a powerful program editing function, flexible and efficient, can meet the requirements of different reagents.
4. **Fast extraction :** operating time is short, 10 to 60 minutes per times, can extract 32 samples at the same time.
5. **High purity and high yield:** according to the purification and optimization scheme, with accurate incubate time, realizes the higher extraction efficiency and purity. The DNA/RNA can be directly used in PCR and RT-PCR.
6. **Stable and reliable:** avoid differences and errors caused by manual operation, the result is stable and with good repeatability.
7. **Self cleaning:** it has a built-in disinfection function, can take uv disinfection regularly.
8. **Pollution control:** by precise motion control, disposable consumables and self cleaning, strictly control the pollution between holes and between batches, prevent cross contamination.
9. **Safe and reliable:** the door lock automatically.

## Parameters

**Operational mode:** Automatic extraction

**Extraction mode:** Patting and blending, and extract up to 32 samples simultaneously

**Sample volume:** Double-hole lysis extraction mode, sample extraction volume up to 600ul

**Processing volume:** 30ul—1000ul

**Processing throughput:** 32 samples

**Extraction plate position:** Two 96-hole deep-hole plate extraction plates

**Temperature control range:** 30°C~90°C

**Magnetic bead recovery efficiency:** >95%

**Oscillating blending:** High, medium and low speed can be selected to meet different needs

**Operating interface:** Large screen touch control operation, graphical interface, simple and easy to use

**Quick run program:** Eight groups of quick run programs can start the experimental program with at least 2 clicks.

**Extraction program storage throughput:** > 100 groups of programs

**Difference between extraction holes:** Coefficient of variation < 3%

**Instrument interface:** RS232, RJ45 and USB data interfaces

**Program management:** Create, edit, save and delete experimental programs

**UV ultraviolet sterilization:** Supported

**Pre-packaged reagent:** Supported

**Extraction speed:** 10~60 minutes (set according to technical requirements of extraction reagent)

**Weight:** 29Kg

**Rated power:** 800VA

**Operating temperature range:** 10°C~30°C

**Operating humidity range:** ≤80%

**Dimensions:** 435mm x 340mm x 450mm

## MagMix 96 Extractor - High Throughput

Mag Auto 96 nucleic acid extractor can automatically perform lysis, nucleic acid and magnetic beads combination, elution and release, magnetic beads transfer and separation on the sample to be detected under appropriate conditions through program setting, thus realizing separation and extraction of nucleic acid substances from the sample, and being simpler and faster than other nucleic acid extraction methods. The instrument can extract 96 samples at the same time. The user can edit the experimental program, monitor the experimental state, switch the ultraviolet lamp to disinfect and other functions by simple operation on the touch screen. It is characterized by simple operation, fast extraction and reliable results. Pat-96 uses a special 96 deep-well plate as extraction consumables. The bottom of the deep-hole plate is in full contact with the heating module, which greatly improves the temperature uniformity between holes, thus reducing the difference between holes caused by extraction.

### Parameters

**Operating principle:** Magnetic beads method, use magnetic rods and tip comb

**Oscillating mixing:** Tip comb moves up and down to mix, 11 different mixing modes including a speed-shift method

**Sample throughput:** 1-96

**Working volume:** 30-1000 ul

**Sample volume:** 900 ul

**Consumables supported:** 96-well deep-well plate

**Magnetic rods quantity:** 96

**Purification variation of wells:** CV ≤ 5%

**Heating temperature:** Room temperature to 100°C

**Temperature accuracy:** 2%

**Recovery rate of magnetic beads:** >95%

**Extraction duration:** 10-60 min/batch (experiment depended)

**Pollution prevention and control:** Internal UV lamp, air filtration system

**Operation interface:** 7 inch color touchscreen

**Operation mode:** Touch control

**Internal program:** 120 programs storage at maximum

**Program management:** Create, edit, rename, save-as and delete programs

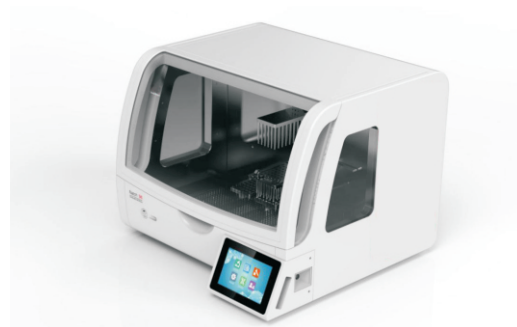
**Power supply:** AC 200-240V/100-120V, 50Hz/60Hz; Power: 800VA

**Operating environment Temperature:** 10°C-35°C, Humidity: 30%-80%

**Shape dimensions:** 655mm \* 655mm \* 520mm (W\*D\*H)

**Instrument's weight:** About 65KG

**Communication interface:** USB2.0 x 2, USB3.0 x 1, audio output x 1, WAN x 1, internal WIFI, blue-tooth



**MagMix 96 Extractor**



## MagRotex 24 Large Volume Extractor

MagRotex 24 Large-volume Nucleic Acid Extractor adopts an innovative spinning-method magnetic bead resuspension technology and a single sample extraction consumables design. It can not only meet the application of nucleic acid extraction with large sample volume (initial sample volume can reach 6000ul), but also select the quantity of consumables based on the sample quantity, thus ensuring the independence of the sample processing process while avoiding waste of consumables, realizing zero loss of consumables and reagents, and rapidly completing nuclear acid extraction and purification of 1-24 different samples at one time. Users can start the experiment by simple operation through the large-size touch screen of the instrument. After the experiment is finished, the extracted nucleic acid is stored in an independent elution tube, which can be taken out and sealed for cryopreservation or subsequent detection.

### Instrumental Features

**Large volume processing:** large-volume sample volume (0.5-6ml) nucleic acid extraction

**Spinning suspension:** Innovative spinning magnetic bead resuspension technology is adopted to avoid aerosol pollution caused by blowing, patting or shaking and to ensure the integrity of nucleic acid structure. User-friendly touch screen operation, large-screen color Chinese display interface, convenient key setting and easy use of cartridge. Flexible program editing function, customized operation mode and step time, to meet the needs of different reagents

**Independent consumables design:** Separate consumables for each sample, independent of each other, so as to avoid cross-contamination. Consumables are selected according to the number of samples, economical and efficient. The extracted nucleic acid can be stored independently for convenient sample retention.

**Safety protection:** The automatic locking function of the extraction bank door is applied to ensure safe operation; built-in UV sterilization function to ensure laboratory biological safety

### Parameters

**Extraction mode:** Spinning and blending

**Sample volume:** 500ul-6000ul

**Independent nucleic acid elution tube:** Supported; elution tube and extraction consumables can be separated and stored separately.

**Processing volume:** 50ul-12ml

**Processing throughput:** 24 samples

**Blending method:** Spinning

**Operating interface:** Large screen touch control operation, graphical interface

**UV ultraviolet sterilization:** Supported

**Pre-packaged reagent:** Supported

**Extraction speed:** 30~90 min/time

**Weight:** 50Kg

**Rated power:** 800VA

**Operating temperature range:** 10-30°C

**Operating humidity range:** <80%

**Dimensions:** 446mm x 384mm x 633mm



MagRotex 24 Extractor



Independent consumable

Cat.No.	Product Name	Package	Price
<b>Chemicals</b>			
C11101	Guanidine hydrochloride	5KG	130
C11102	Guanidine hydrochloride	25KG	585
C11103	Guanidinium thiocyanate	5KG	156
C11104	Guanidinium thiocyanate	25KG	715
C11201	Brij-58	1KG	39
C11202	Brij-58	10KG	312
C11220	EDTA	1KG	23
C11230	DEPC	1000 ml	546
C12140	DTT	10g	52
C12170	Reagent DX	10ml	21
<b>Enzymes</b>			
C12100	Proteinase K (Lyophilizate), 1	1g	156
C12101	Proteinase K (Lyophilizate)	10g	1301
C12103	Proteinase K Solution, 20mg/ml	10 ml	39
C12104	Proteinase K Solution, 20mg/ml	1000ml	2861
C12106	Magen Protease (Liquid)	1000ml	780
C12110	Poly A	310ug	16
C12111	Poly A	1g	234
C12120	RNase A	1g	130
C12121	RNase A	10g	1040
C12131	DNase I	100mg	78
C12131	DNase I	1g	520
C12135	Lysozyme	10g	91
<b>KingFisher Plate and Tip</b>			
C15100	96 Deep Well Plate	50/Box	156
C15101	96 KF Plate	100/Box	312
C15102	96 KF Plate B	100/Box	312
C15103	96 TiP Comb (DW Plate)	100/Box	338
C15200	24 Deep Well Plate	50/Box	182
C15201	24 Tip& Plate	50/Box	325

Cat.No.	Product Name	Package	Price
<b>Columns and Accersories</b>			
C13100	HiPure DNA Micro Column	10 x 100/Bags	156
C13110	HiPure DNA Mini Column II	10 x 100/Bags	156
C13111	HiPure RNA Mini Column	10 x 100/Bags	156
C13112	HiPure Viral Mini Column	10 x 100/Bags	156
C13113	HiPure CF DNA Mini Column	100/Bags	78
C13120	HiPure DNA Midi Column	50/Bags	78
C13121	HiPure DNA Maxi Column	50/Bags	208
C13122	HiPure DNA Maxi Column C	50/Bags	234
C13130	HiPure DNA Plate	10/Bag	208
C13131	HiPure gDNA Plate	10/Bag	208
C13200	2ml Collection Tubes	100/Bags	5
C13201	15ml Collection Tubes	50/Bas	16
C13202	50ml Collection Tubes	50/Bags	16
C13203	50ml Centrifuge Tubes	50/Bags	26
C13205	1.6ml Collection Plate	10/Bag	26
C13301	Vac Connectors	100/Bags	26
C13302	Extender Tubes	50/Bags	39
C13303	CockStop	50/Bags	130
C14501	2ml beads tubes	100/Bags	91
C14502	2ml bacterial Tubes	100/Bags	81
<b>MagPure Particles</b>			
C14100	MagPure Particles	100 ml	208
C14101	MagPure Particles	380 ml	728
C14102	MagPure Particles	800 ml	1248
C14110	MagPure Particles N	100 ml	208
C14111	MagPure Particles N	380 ml	728
C14112	MagPure Particles N	800 ml	1248
C14120	MagPure Particles G	100 ml	338
C14121	MagPure Particles G	380 ml	1873
C14122	MagPure Particles G	800 ml	3277
C14130	MagBind Particles	10 ml	104
C14131	MagBind Particles	100 ml	624





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Purification Beyond your Imagination

Version @ 2021

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