MGI
Sample Treatment Reagent

Product Catalogue

For Research Use Only. Not for Diagnostic Use.

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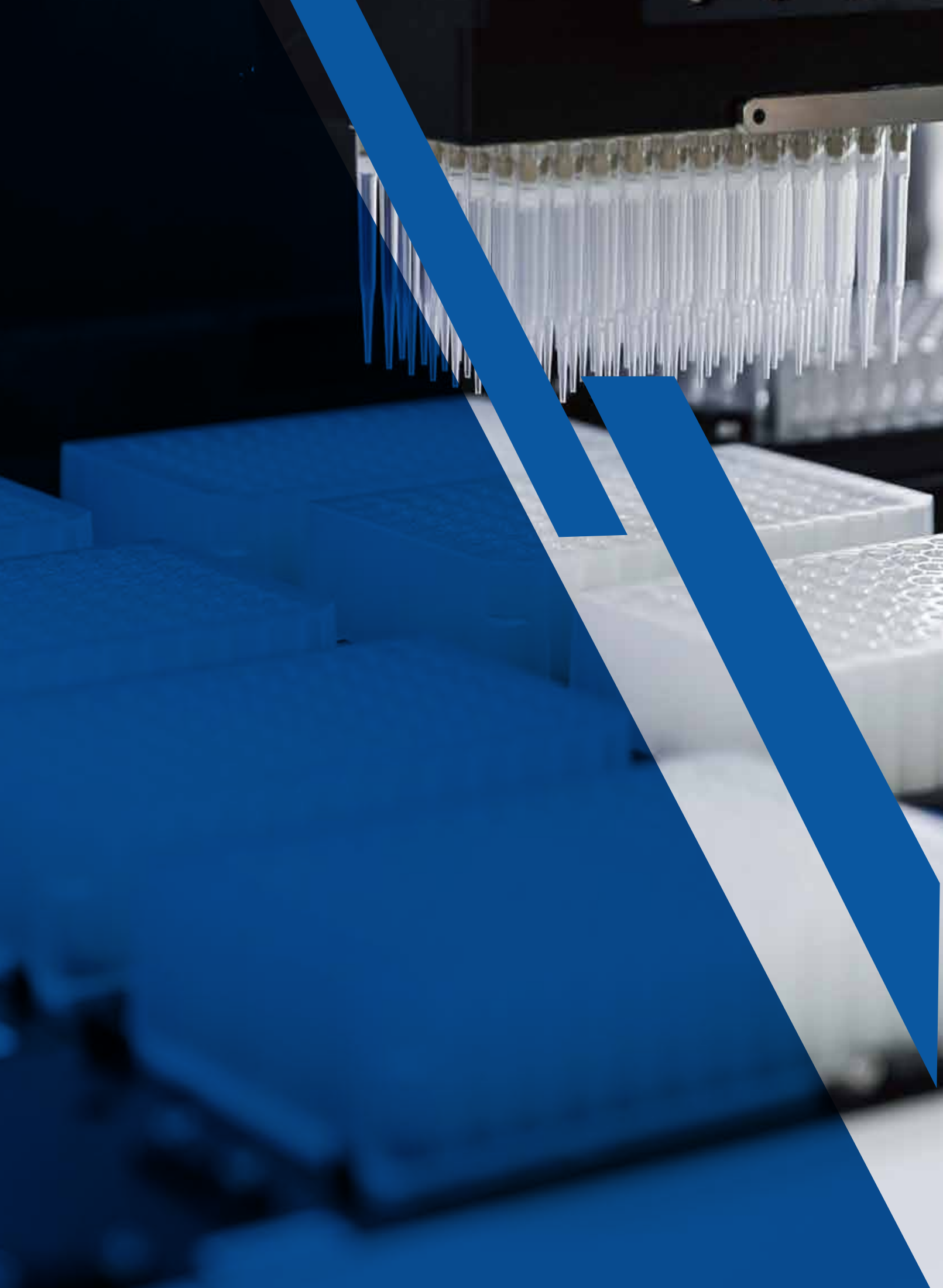
About MGI



A Sample Preservation Kit

MGIEasy Stool Sample Collection Kit

MGIEasy Saliva Sample Collection Kit

MGIEasy Sample Collection and Release Reagent

Product function

Collection stabilization and transportation of the DNA from stool samples	Collection, stabilization and transportation of the gDNA and virus DNA and RNA from saliva	Collection and preservation of virus samples and nucleic acid release

Applicable sample type

Stool	Saliva	Oropharyngeal swab and Nasopharyngeal swab

Adaptation platform

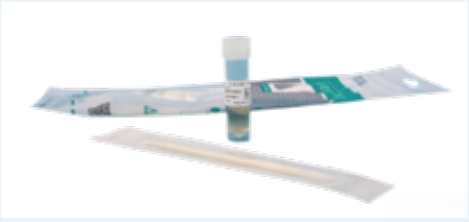
MGISTP-3000 automated sample transfer processing system

MGISTP-7000 automated sample transfer processing system

MGIEasy Stool Sample Collection Kit

Professional tool for intestinal microorganism and human gDNA research

This kit is a NOPB-based preservation kit, which can preserve stool sample stably and provide a perfect solution for intestinal microorganism and human gDNA collection and preservation. The kit can be compatible with MGISTP-3000 and MGISTP-7000 automated sample transfer processing system, so as to realize the automatic packing of samples.



MGIEasy Stool Sample Collection Kit

MGISTP-3000

MGISTP-7000

Feature

Reduce the data bias result from microorganism growth and nucleic acid degradation

Support for sample tracking

Support for room temperature storage

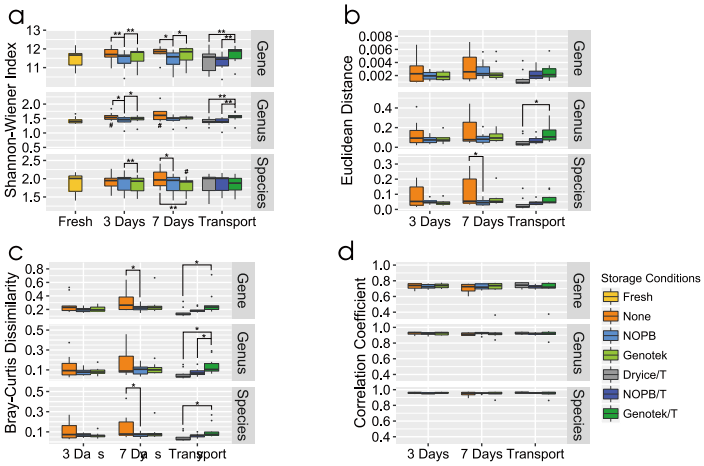
Widely application

Product Informatioin

Specification	Storage temperature	Sample input per kit	Sample stability period after collection	Application
1 prep	Room temperature	~0.5g	14 days	WGS,16S rDNA,PCR

Performance

Take the fresh sample as control, compare to the same kind product with different stabilizer by gene relative abundance, species, abundance, dissimilarity in relation to relative gene abundances and microbiome composition*. The result indicate our NOPB-based reagent data has no difference from the fresh sample.That is, the microorganism in samples can be completely preserved in this preservation solution for 7 days or transportation.



*Han Mo,Hao Lilan,Lin Yuxiang et al. A novel affordable reagent for room temperature storage and transport of fecal samples for metagenomic analyses.[J] .Microbiome, 2018, 6: 43.

MGIEasy Saliva Sample Collection Kit

Professional tool for human gDNA and virus DNA and RNA research

This kit stably preserves human DNA and viral DNA and RNA in saliva at room temperature, providing a reliable sampling tool for consumer grade genomic and viral testing. At the same time, the sample storage tube can be adapted to MGISTP-3000 and MGISTP-7000 automatic cup splitting system, which can realize automatic packing.

MGIEasy Saliva Sample Collection Kit

MGISTP-3000

MGISTP-7000

Feature

- **Easy to use**
- **Support for sample tracking**
- **Stably preservation**
- **Widely application**

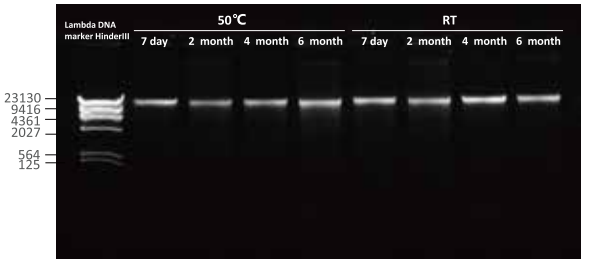
Product Information

Specification	Storage temperature	Sample input per kit	Sample stability period after collection	Application
1 prep	Room temperature	1 mL	>1 year for human gDNA; 7 day for virus DNA and RNA	WGS,WES, Array, PCR

Performance

Human gDNA has good preservation stability

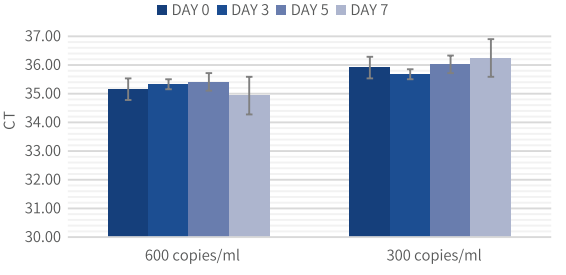
The normal saliva samples were stored at 50°C and room temperature for 7 days, 2 months, 4 months and 6 months, respectively, and then nucleic acid extraction and gel electrophoresis were carried out. The results showed that the gDNA extracted was still intact at 23Kb after being stored at 50°C for 6 months.



Integrity of extracted DNA

RNA virus has good preservation stability

Saliva mixed with 600 copies/ml and 300 copies/ml of RNA pseudoviruses were used as samples. After 1, 3, 5 and 7 days of storage at room temperature, nucleic acid extraction and RT-PCR detection were carried out. The results showed that the preservation solution could stably preserve RNA viruses at room temperature for 7 days.



RT-PCR results

MGIEasy Sample Collection and Release Reagent

Fast and simple extraction-free reagent

This product is mainly composed of nucleic acid protec□tion reagent and nucleic acid release reagent, which is used for the collection and storage of virus samples and nucleic acid release. The oropharyngeal or nasopharyn geal swabs will be collected and put into the Sample Collection and Release Reagent. After 65°C treatment for 30 min, the nucleic acid DNA or RNA can be released efficiently and directly used in downstream applications (e.g., RT-PCR), without nucleic acid extraction step.

MGIEasy Sample Collection and Release Reagent

MGISTP-3000

MGISTP-7000

Feature

Convenience

One tube could be used for virus sampling and nucleic acid release together

Extraction-free

No nucleic acid extraction process while saving time and labor

Good Compatibility

Compatible with various RT-PCR kits

Automation

Compatible with automatic de-capping machine, MGISTP-7000 and MGISTP-3000

Product Information

Specification	Applicable specimens	Reaction Condition	Period of validity	Storage Condition	Application
3mL solution/tube, 100 PCS/Kit	Oropharyngeal swab and Nasopharyngeal swab	65°C, 30min	12 months	0-30°C	PCR、RT-PCR

Performance

The SARS-CoV-2 pseudo-virus as the sample are diluted with the MGI Sample Collection and Release Reagent to 200, 400, 800 copies/mL; LOD of 400 copies/ml offers the test sensitivity required.

Sample Concentration (copies/ml)	No. of Samples	Target Gene	Mean	CV	Detection Rate
200	20	ORF	36.34	1.12%	17/20
		N	35.73	2.73%	19/20
400	20	ORF	35.01	1.56%	20/20
		N	34.56	0.45%	20/20
800	20	ORF	34.22	1.46%	20/20
		N	33.3	0.68%	20/20

B Virus Nucleic Acid Extraction Kit

	MGIEasy Nucleic Acid Extraction Kit					HPV DNA Extraction Kit
Throughput	High Throughput		Medium Throughput	Low Throughput		/
Model						
	T-1728/T-96	VDR03P-96	VDR02P-96	VDR03P-32	OP02-32	HD01T-96
Product function	Efficient extraction of viral DNA and RNA					Efficient purify viral DNA from cervical swabs, FTA card washing solution
Product form	Tube	Pre-load	Pre-load	Pre-load	Pre-load	Tube
Adaptation platform	 MGISP-960	 MGISP-NE384	 MGISP-NE384	 MGISP-960	 MGISP-NE32	 MGISP-NE32	 MGISP-960

MGIEasy Nucleic Acid Extraction Kit (Model: T-1728/T-96)

HOT SALE

Efficient, large package virus nucleic acid extraction kit

Using superparamagnetic beads, efficiently isolate the virus DNA and RNA from sample, compatible with our MGISP-NE384, MGISP-960 and MGISP-100 system

Extraction reagent

MGISP-NE384

MGISP-100

MGISP-960

Feature

Widely sample type

Automation friendly

High efficiency, the LOD as low as 100 copies per mL with RT-PCR

Product Information

Specification	Storage temperature	Sample type	Input volume	Application
1728 preps 96 preps	Box 1: 0~30°C Box 2: -25~-15°C	Nasopharyngeal swabs, oropharyngeal swabs, saliva, cervical swabs, FTA card washing solution and BALF	160 -200 µL recommended	PCR,RT-PCR

Performance

Dilute the cultured virus to different concentration, and extracted it using T-1728 on MGISP-960. The results showed that MGI nucleic acid extraction reagent had high extraction efficiency. Combined with a highly sensitive RT-PCR assay kit, detection sensitivity as low as 100 copies/mL can be achieved.

Item	200 Copies/mL	150 Copies/mL	100 Copies/mL
Sample number	20	20	20
Mean Ct	34.6	34.85	35.28
CV%	1.39%	1.26%	1.89%
Detection rate	100%	100%	100%

MGIEasy Nucleic Acid Extraction Kit (Model:VDR03P-96)

Fast and efficient virus nucleic acid extraction kit

Using superparamagnetic beads and unique technology, all the reagent prepacked into deep well plates, compatible with MGISP-NE384 perfectly, can isolate the virus DNA and RNA fast and efficiently.

Extraction reagent

MGISP-NE384

- Feature

Easy to use

All the reagent prepacked into deep well plates, only need to load sample before use

TAT short

The TAT as short as 15 mins with MGISP-NE384

High efficiency

The LOD as low as 150 copies per mL with RT-PCR

Super high throughput

Up to 14000 samples per day with MGISP-NE384

- Product Info

Specification	Storage temperature	Sample type	Input volume	Elution volume	TAT
96 Preps	2~8°C	Swabs	200 µL	50 µL	~15 mins

- Performance

Using the novel coronavirus as a sample and the samples were diluted to 150 copies/ml, and the kit was used for nucleic acid extraction and RT-PCR detection. 40 samples were repeated. The average CT value was 35.5, CV was 1.8%, and the detection rate was 100%.

Item	Sample number	Mean Ct	CV%	Detection rate
Sample number	40	35.5	1.8%	100%

MGIEasy Nucleic Acid Extraction Kit (Model: VDR02P-96)

Fast and efficient virus nucleic acid extraction kit

Using superparamagnetic beads, used for isolate nucleic acid from cell free samples, such as throat swab, all the reagent prepacked into deep well plates, compatible with MGISP-960 perfectly.

Extraction reagent MGISP-960

Feature

Easy to use

Prepacked kit, full automation extraction

High throughput

96 samples per 40 mins

Widely application

Used for PCR, RT-PCR, sequencing

High efficiency

The LOD as low as 100-150 copies / mL with RT-PCR

Product Information

Specification	Storage temperature	Sample type	Input volume	Elution volume	TAT
96 preps	Box 1:0-30℃ Box 2:2-8℃	Throat swab	160 μL	35 μL	40 mins

Performance

Application case 1 **Virus RT-PCR detection**

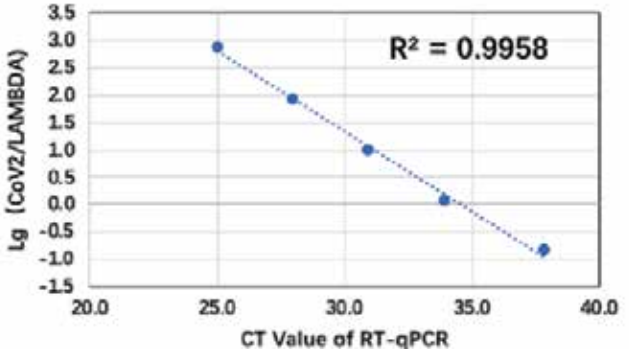
The virus culture was diluted to different concentrations, and detection was performed using highly sensitive RT-PCR, the results showed that VDR02P-96 could achieve stable detection of 100-150 copies/ml virus samples.

Concentration	Sample number	Mean Ct value	CV	Detection rate
150 copies/ml	4	35.27	1.3%	100%
100 copies/ml	4	35.83	1.46%	95.8%

Application case2 Detect mutation by sequencing

Method Dilute the cultured virus to different concentration, and extracted it using VDR02P-96, followed by ATOPlex COVID RNA multiplex PCR library preparation, then sequenced on DNBSEQ-G400 (PE100) to detect and analyze mutation.

Result Our kit can compatible with sequencing. compare the ratio of virus and internal control sequencing data, which represent the virus concentration, to the RT-PCR Ct values, the linearity is 99.58% which indicate has good consistency with RT-PCR



Sample	RT-PCR Ct value			ATOPlex Sequencing (virus relative concentration)		
	Replicate 1	Replicate 2	Replicate 3	Replicate 1	Replicate 2	Replicate 3
Concentration1	25.0	24.9	25.2	99.89%	98.86%	99.83%
Concentration 2	27.9	28.0	28.1	98.52%	99.01%	98.87%
Concentration 3	30.9	31.0	31.0	91.95%	89.41%	90.73%
Concentration 4	33.9	34.0	34.0	49.84%	55.44%	58.08%
Concentration 5	37.6	38.4	37.6	12.55%	11.76%	14.21%
Concentration 6	No CT	No CT	No CT	2.33%	2.72%	3.44%
Concentration 7	No CT	No CT	No CT	0.95%	1.40%	0.59%
Concentration 8	No CT	No CT	No CT	0.33%	0.37%	0.04%

MGIEasy Nucleic Acid Extraction Kit (Model:VDR03P-32)

Fast and efficient virus nucleic acid extraction kit

Using superparamagnetic beads and unique technology, all the reagent prepacked into deep well plates, compatible with MGISP-NE32 perfectly, can isolate the virus DNA and RNA fast and efficiently.

Extraction reagent

MGISP-NE32

Feature

Easy to use

Just loading sample before run, TAT as short as 10 mins

High throughput

Up to 1500 samples per 24 hours with MGISP-NE32

High efficiency

The LOD as low as 150 copies per mL with RT-PCR

Widely application

Such as RT-PCR, sequencing

Product Information

Specification	Storage temperature	Sample type	Input volume	Elution volume	TAT
32 preps	0~8°C	Throat swab	200 μL	50 μL	10 mins

Performance

Using the novel coronavirus as a sample and the samples were diluted to 150 copies/ml, and the kit was used for nucleic acid extraction and RT-PCR detection. 20 samples were repeated. The average CT value was 34.93, CV was 2.5%, and the detection rate was 100%.

Item	Sample number	Mean Ct	CV%	Detection rate
Sample number	20	34.93	2.5%	100%

MGIEasy Nucleic Acid Extraction Kit (Model: OP02-32)

Efficient, widely sample type virus nucleic acid extraction kit

Extraction reagent

MGISP-NE32

Feature

Easy to use

TAT as short as 35 mins

Widely sample type

Such as throat swab, nasal swab, BALF, saliva and blood

High efficiency

The LOD as low as 250 copies per mL with RT-PCR

Product Information

Specification	Storage temperature	Sample type	Input volume	Elution volume	TAT
32 preps	0~8°C	throat swab, nasal swab, BALF, saliva and blood	300 μL	80 μL	Approx 35 minutes

Performance

We extracted the diluted H1N1 and influenza B throat swab samples using this kit. The extracted product tested by RT-PCR, we found the linearity between Ct value and dilution concentration, which means the kit has excellent yield linearity.

Sample ID	Species	Dilution (copies/mL)	Dup-1 Ct value	Dup-2 Ct value	Average Ct value
1	H1N1	10^6	22.4	22.18	22.29
2	H1N1	10^5	25.47	25.37	25.42
3	H1N1	10^4	28.85	28.7	28.775
4	H1N1	10^3	32.1	32.31	32.205
5	H1N1	10^2	37.14	38.04	37.59
6	influenza B	10^6	21.81	22.25	22.03
7	influenza B	10^5	24.89	25.23	25.06
8	influenza B	10^4	28.42	28.71	28.565
9	influenza B	10^3	31.8	31.98	31.89
10	influenza B	10^2	35.96	36.62	36.29

We extracted the diluted H1N1 and influenza B throat swab samples using this kit. The extracted product tested by RT-PCR, we found the linearity between Ct value and dilution concentration, which means the kit has excellent yield linearity.

Sample ID	Species	Ct value	Clinical result	Sample ID	Species	Ct value	Clinical result
1	H1N1	28.8	Positive	15	influenza B	20.0	Positive
2	H1N1	35.3	Positive	16	influenza B	27.2	Positive
3	H1N1	31.1	Positive	17	influenza B	26.8	Positive
4	H1N1	33.3	Positive	18	influenza B	26.5	Positive
5	H1N1	31.5	Positive	19	influenza B	undetected	Negative
6	H1N1	37.9	Positive	20	influenza B	22.2	Positive
7	H1N1	24.0	Positive	21	influenza B	23.9	Positive
8	H1N1	31.8	Positive	22	influenza B	30.6	Positive
9	H1N1	23.4	Positive	23	influenza B	25.6	Positive
10	H1N1	31.3	Positive	24	influenza B	25.6	Positive
11	H1N1	undetected	Negative	25	influenza B	31.4	Positive
12	H1N1	24.0	Positive	26	influenza B	29.9	Positive
13	H1N1 positive control	23.9	-	27	influenza B positive control	24.1	-
14	H1N1 negative control	undetected	-	28	influenza B negative control	undetected	-

HPV DNA Extraction Kit

Efficient virus nucleic acid extraction kit

HPV DNA Extraction Kit can be used to efficiently purify viral DNA from cervical swabs, FTA card washing solution and is suitable for downstream molecular detection.

Extraction reagent

MGISP-960

Feature

High extraction efficiency

Automation friendly

Compatible with PCR, qPCR

Product Information

Specification	Storage temperature	Sample type	Application
96 preps	Box 1:0-30°C Box 2:-25~-15°C	Cervical swab, FTA card washing solution	PCR, RT-qPCR

Performance

Method: The virus culture was diluted to different concentrations, and detection was performed using highly sensitive RT-PCR, the results showed that kit could achieve stable detection of 100-150 copies/ml virus samples.

The results: The detection results of MGI HPV DNA extraction kit using MGISP-960 were consistent with the original.

No.	Sample	Original result	FAM-HPV 16	VIC-HPV18
1	Cervical swab-Hologic PreservCyt. Solution	HPV16 +	23.6	-
2		HPV16 +	34.3	-
3	Cervical swab-BGI Cell Preservation Solution	HPV16 +	16.02	-
4		HPV16 +	20.5	-
5		HPV18 +	-	25.72
6		HPV18 +	-	19.54
7		HPV18 +	-	28.84
8	FTA Card	HPV16 +	34.66	-
9		HPV16 +	24.38	-
10		HPV18 +	-	35.13

C Genomic DNA Extraction Kit

						
MGIEasy Genomic DNA Extraction Kit	**MGIEasy Circulating DNA Isolation Kit**	**MGIEasy Magnetic Beads Blood Genomic DNA Extraction Kit**	**MGIEasy Stool Human DNA Extraction Kit**	**MGIEasy Stool Microbiome DNA Extraction Kit**	**MGIEasy Microbiome DNA Extraction Kit**	**MGIEasy FFPE DNA Extraction Prepacked Kit (MGISP-NE32)**
Product form						
Tube	Tube	Tube & Plate	Tube	Tube	Tube	Plate
Applicable sample type						
Blood, Saliva, Cells, Tissue, amniotic fluid	Plasma	Fresh blood, Frozen blood, Buffy coat and Saliva	Stool	Stool	Swab, serum, plasma, CSF, BALF, urine, sputum, bacterial culture fluid	FFPE sections, Paraffin-embedded blocks and Formalin fixed tissue
extraction product						
Human gDNA	cfDNA	Human gDNA	Human gDNA	Microbiome DNA	Microbiome DNA	FFPE DNA
Adaptation platform						
 MGISP-960	 MGISP-960	 MGISP-960	 MGISP-960	 MGISP-960	 MGISP-960	
 MGISP-100	 MGISP-100	 MGISP-NE384	 MGISP-NE384	 MGISP-NE384		 MGISP-NE32
		 MGISP-NE32				

MGIEasy Genomic DNA Extraction Kit

Efficient, widely sample type genomic DNA extraction kit

Using superparamagnetic beads, easy to use, avoid using the toxic phenol chloroform, compatible with MGISP-100 and MGISP-960 system.

Extraction reagent

MGISP-100

MGISP-960

Feature

High efficiency

High purity of extracted product

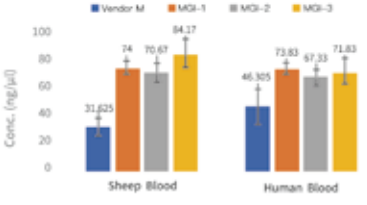
Work for various sample type

Product Information

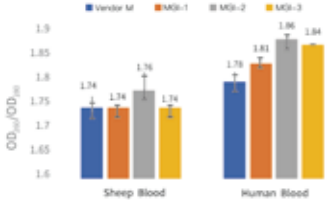
Specification	Storage temperature	Sample type	Automation TAT	Application
48 preps	Room temperature	Blood, Saliva, Cells, Tissue, amniotic fluid	Approx 90 mins	WGS, WES, CNV-Seq, Cancer, NIPAT

Performance

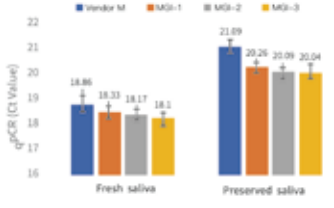
For the whole blood sample (200uL), nucleic acid extraction was carried out using MGIEasy Genomic DNA extraction kit. The results show that the extraction concentration all more than 70ng/uL, and the A260/A280 are between 1.7-1.9. Nucleic acid was extracted from saliva samples (200-400ul) and detected by qPCR. The results showed that the extracted products did not inhibit downstream qPCR. Be aimed at blood and saliva namely, extract performance is good.



Nucleic acid extraction concentration



Purity of nucleic acid extraction



qPCR value

MGIEasy Circulating DNA Isolation Kit

Efficient, stable circulating DNA extraction kit

Using superparamagnetic beads, easy to use, avoid using the toxic phenol chloroform, compatible with MGISP-100 and MGISP-960 system.

Extraction reagent

MGISP-100

MGISP-960

Feature

High efficiency

Stable and linear yield

Product Info

Specification	Storage temperature	Sample type	Automation TAT	Input volume	Application
192 preps	Room temperature	Plasma	Approx 60 mins	Manual:300 μL Automation:220 μL	NIPT NIPAT

Performance

MGIEasy circulating DNA extraction kit was used to extract cfDNA from plasma. According to different input volumes, the results showed that the average yield of 100uL was about 2ng regardless of the input volume was 300uL or 600uL, indicating that the overall yield was stable.

Stable and linear yield

Sample ID	Input volume (μL)	Elution volume (μL)	cf DNA Conc (ng/μL)	Total mass (ng)	yield per 100 μL sample (ng)
5	300	15	6.28	2.1	3.5%
5	600	16	12.06	2	2.9%

MGIEasy Magnetic Beads Blood Genomic DNA Extraction Kit

Efficient, work for tough sample DNA extraction kit

Using superparamagnetic beads, extracting high quality genomic DNA from fresh blood, frozen blood, buffy coat and saliva. compatible with MGISP-NE384, MGISP-960 and Kingfisher flex platform.

Extraction reagent

MGISP-NE384

MGISP-960

Feature

High efficiency

Work for frozen blood

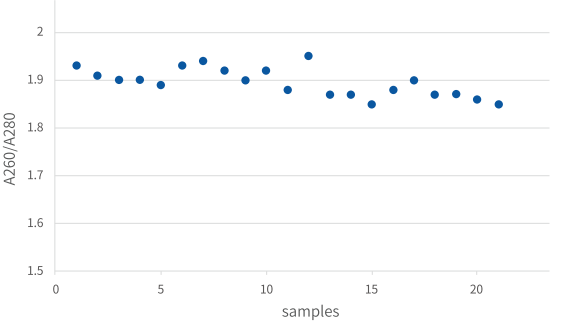
Compatible with multiple platform

Product Information

Specification	Storage temperature	Sample type	Application
864 & 96 preps	2°C-30°C	Fresh blood, Frozen blood, Buffy coat and Saliva	WGS,WES and Cancer

Performance

After nucleic acid extraction of 21 buffy coat samples, high purity products can be obtained, with A260/A280 ranging from 1.8 to 2.0, indicating good purity of product extraction.



MGIEasy Blood Genomic DNA Extraction Prepacked Kit (MGISP-960)

Easy to use, work for tough sample

Using superparamagnetic beads, extracting high quality genomic DNA from fresh blood, frozen blood, buffy coat and saliva. compatible with MGISP-960 perfectly.

Extraction reagent

MGISP-960

- Feature

High efficiency

Work for frozen blood

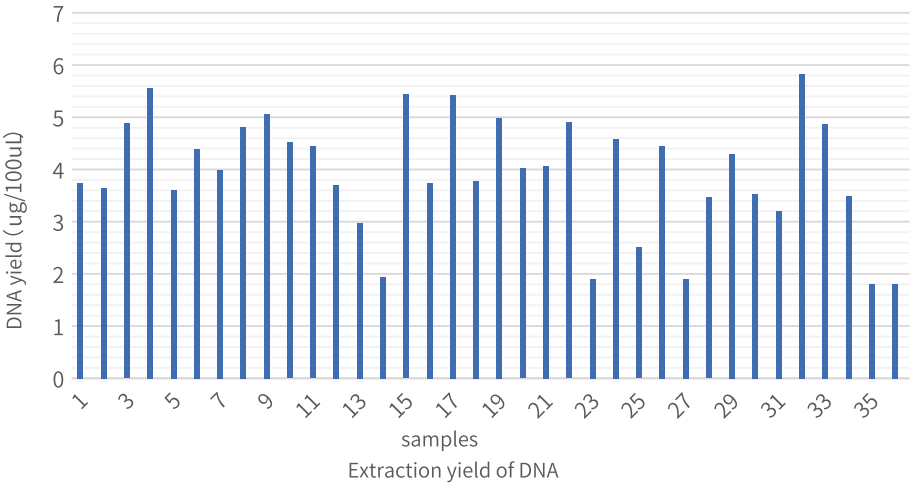
Prepacked kit, easy to use

- Product Information

Specification	Storage temperature	Sample type	Application
96 preps	2-30°C	Fresh blood, Frozen blood, Buffy coat and Saliva	WGS,WES, Cancer

Performance

Using fresh blood as samples, nucleic acid was extracted on MGISP-960, and the extraction products were quantified by Qubit. The results showed that the average extraction yield in 36 samples was 4 ug/100uL, which fully satisfied the down-stream application.



Extracting frozen blood samples using this kit on MGISP-960, followed by Qubit detection, the result indicated the average concentration of extracted gDNA is 71 ng/μL, the average mass is 7.1 μg, which can fulfill the requirement of downstream application.

Sample ID	Concentration (ng/ul)	A260/230	Sample ID	Concentration (ng/ul)	A260/230
S1	171.99	2.294	S14	32.40	1.921
S2	16.34	2.542	S15	29.11	1.922
S3	26.49	2.46	S16	26.50	1.807
S4	102.52	2.292	S17	112.16	2.041
S5	20.21	1.721	S18	121.41	2.088
S6	44.19	2.335	S19	97.72	2.144
S7	18.16	2.139	S20	90.61	2.065
S8	90.21	2.174	S21	92.23	2.168
S9	30.56	2.211	S22	97.49	2.042
S10	55.83	2.232	S23	102.71	2.12
S11	34.28	2.097	S24	98.65	2.048
S12	54.48	2.118	S25	152.10	2.117
S13	56.35	2.162	S26	74.84	2.11

MGIEasy Blood Genomic DNA Extraction Prepacked Kit (MGISP-NE384)

Super high throughput, easy to use, work for tough sample

Using superparamagnetic beads, extracting high quality genomic DNA from fresh blood, frozen blood, buffy coat and saliva. compatible with MGISP-NE384 perfectly.

Extraction reagent

MGISP-NE384

- Feature

High efficiency

Work for frozen blood

The main reagent prepacked to plate,easy to use

Super high throughput with MGISP-NE384

- Product Information

Specification	Storage temperature	Sample type	Application
96 preps	Box 1: Room temperature Box 2: 2-8°C	Fresh blood, Frozen blood, Buffy coat and Saliva	WGS,WES, Cancer

Performance

Extract saliva using this kit, the extracted product detected by Qubit, the average yield is 1.9 μg

Sample ID	A260/A280	Yield (μg)	Sample ID	A260/A280	Yield (μg)
S1	1.75	2.1	S9	1.67	1.7
S2	1.65	2.0	S10	1.73	2.3
S3	1.79	1.6	S11	1.74	2.2
S4	1.6	1.7	S12	1.71	2.0
S5	1.74	1.5	S13	1.69	1.9
S6	1.65	1.8	S14	1.68	2.0
S7	1.75	1.5	S15	1.69	1.9
S8	1.71	1.9	S16	1.71	1.8
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Extract buffy coat using this kit, the extracted product detected by Qubit, the average yield is 6.8 μg

Sample ID	A260/A280	Yield (μg)	Sample ID	A260/A280	Yield (μg)
S1	1.93	7.3	S11	1.88	7.3
S2	1.91	6.1	S12	1.95	4.8
S3	1.9	6.7	S13	1.87	3.7
S4	1.9	5.5	S14	1.87	13.0
S5	1.89	6.3	S15	1.85	13.0
S6	1.93	6.9	S16	1.88	5.0
S7	1.94	6.4	S17	1.9	2.9
S8	1.92	6.5	S18	1.87	5.2
S9	1.9	7.3	S19	1.87	6.1
S10	1.92	4.3	S20	1.86	8.9
--	--	--	S21	1.85	8.9

MGIEasy Stool Human DNA Extraction Kit

Efficient stool human gDNA extraction kit

MGIEasy Stool Human DNA Extraction Kit is designed for efficiently extracting and purifying high quality genomic DNA from fresh and frozen human stool samples. The extracted product can be used for the early screening of colorectal cancer and the research of human intestinal diseases.

Extraction reagent

MGISP-NE384

MGISP-960

- Highlight

Focuses on extraction of human gDNA

High extraction efficiency

Automation friendly

High safety

- Product Information

Specification	Storage temperature	Sample type	Compatible Automation	Application
96 preps & 1536 preps	2°C-30°C	Fresh and frozen human stools	MGISP-960 MGISP-NE384	WGS, WES, Colorectal cancer

Application Cases

Case 1

Human gDNA was extracted from fresh human stools by manual and automation platform (MGISP-960 and MGISP-NE384). The results showed the extraction product can fully satisfy the downstream operation and has no PCR inhibition. And, the extraction performance of automatic and manual extraction are basically consistent, indicating that MGI's kit has high adaptability.

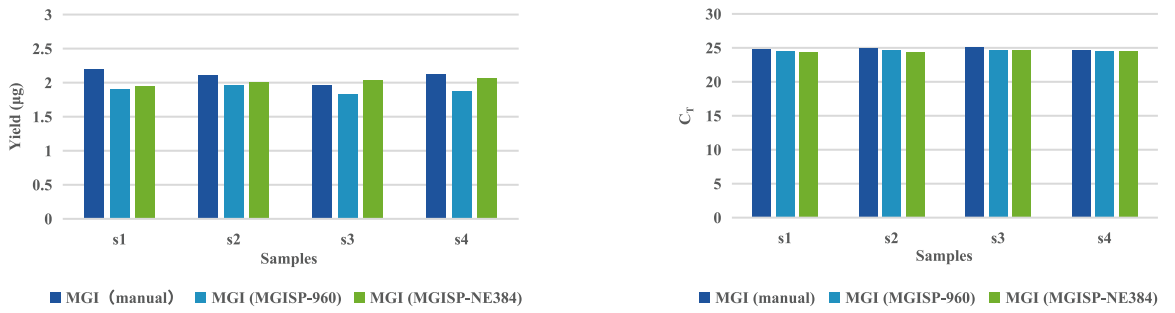


Figure 1 Comparison of manual and automated extraction methods of MGI's kit

Case 2

Using three batches of MGI's kits to extract gDNA from human stools, the electrophoretic diagram showed that the extracted gDNA had good integrity, and C_T values maintain stability in different batches.

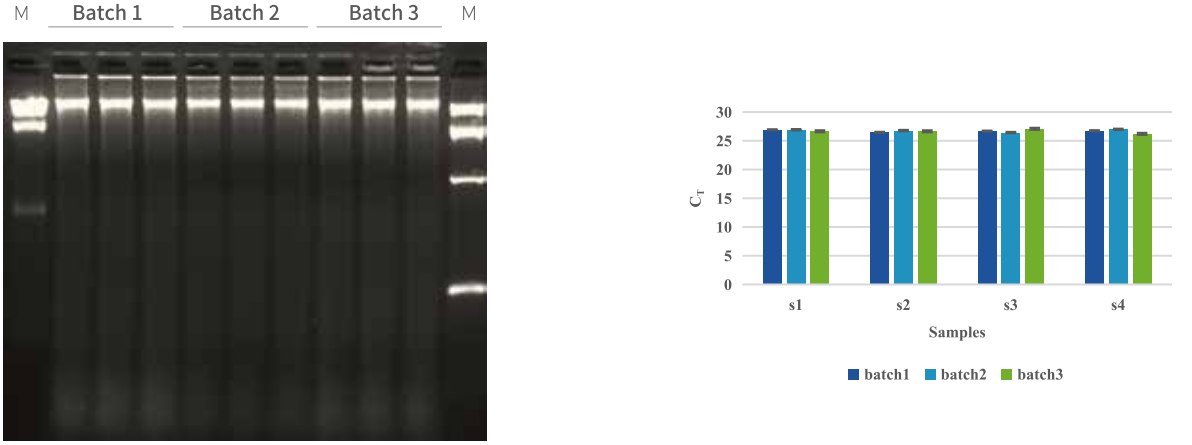


Figure 2 Extraction efficiency of MGI's kit in different batches

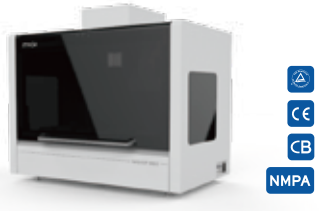
MGIEasy Stool Microbiome DNA Extraction Kit

Efficient stool microbiome gDNA extraction kit

MGIEasy Stool Microbiome DNA Extraction Kit is designed for extracting and purifying high quality microbial genomic DNA from fresh and frozen human stool samples. With grinding beads, it can achieve unbiased extraction of microbial species from samples, including G-/G+ bacteria, fungi, protozoa, etc. The extracted product can be used for metagenomic analysis, intestinal flora research, probiotics research, etc.

Extraction reagent

MGISP-NE384



MGISP-960

- Highlight

Focuses on the extraction of microbial gDNA

Good extraction performance

Automation friendly

High safety

- Product Information

Specification	Storage temperature	Sample type	Compatible Automation	Application
96 preps & 384 preps	2°C-30°C	Fresh and frozen human stools	MGISP-960 MGISP-NE384	Sequencing, Metagenomic analysis, WGS

Application Cases

Case 1

Using manual and automation platform (MGISP-960 and MGISP-NE384) to extract microbiome gDNA from fresh human stools. The result shows the extraction performance of manual and automatic extraction were basically consistent, which means MGI's kit can compatible with multiple automation platforms."修改为"Using manual and automation platform (MGISP-960 and MGISP-NE384) to extract microbiome gDNA from fresh human stools. The result shows A260 / A280 > 1.8 and CT value < 20, which means the extraction performance of manual and automatic extraction were basically consistent, that is MGI's kit can compatible with multiple automation platforms.

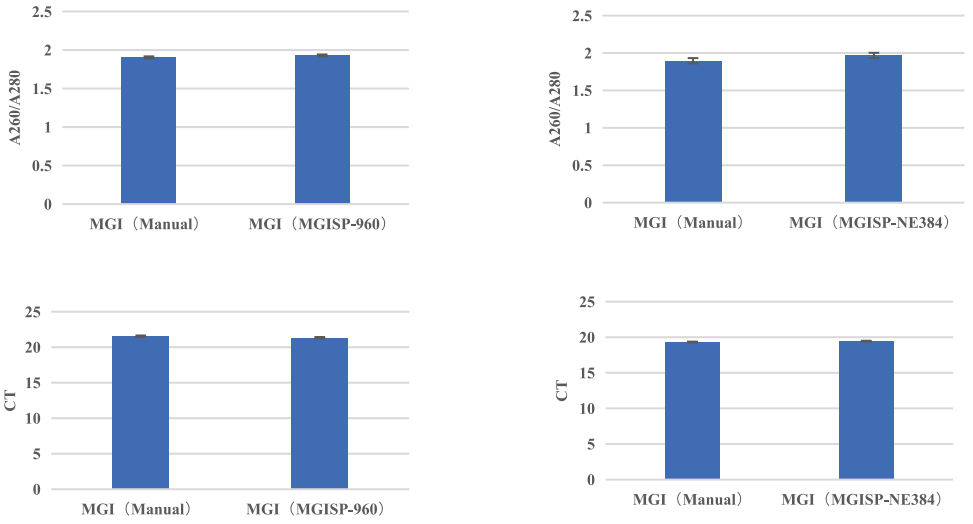


Figure 1 Comparison of manual and automated extraction methods of MGI's kit

Case 2

Using MGI's kit to extract microbiome gDNA from 9 human stools, and the input volume was 1 mL and 200 µL. The extraction product was performed by metagenomic analysis. Two data indicators, PCoA and Bray Dissimilarity, showed that MGI extraction reagent could achieve non-biased extraction of species in samples.

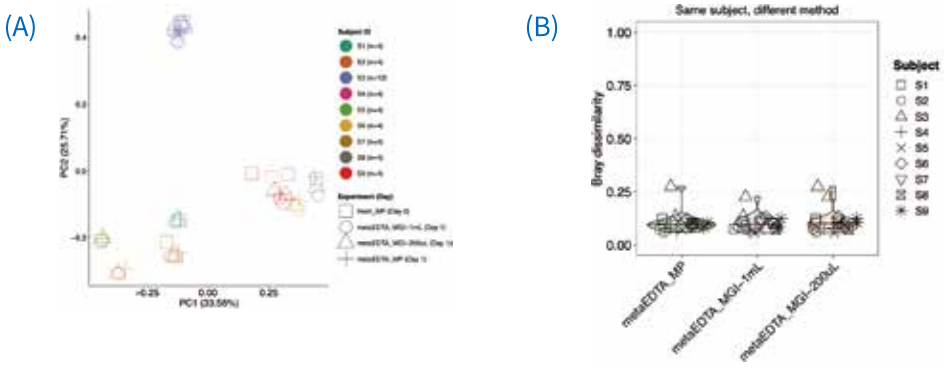


Figure 2 Metagenomic analysis

MGIEasy Microbiome DNA Extraction Kit

Efficient microbiome gDNA extraction from a variety of samples

MGIEasy Microbiome DNA Extraction Kit could efficiently purify the microbial DNA from various samples such as serum, plasma, CSF (cerebrospinal fluid), BALF (alveolar lavage fluid), urine, sputum, bacterial culture fluid, etc. This kit is suitable for the extraction of DNA from gram-negative bacteria, gram-positive bacteria, fungus, DNA viruses, etc.

Extraction reagent

MGISP-960

- Highlight

High extraction efficiency from various sample types

Low background bacterial pollution for ultraclean production process

Automation friendly

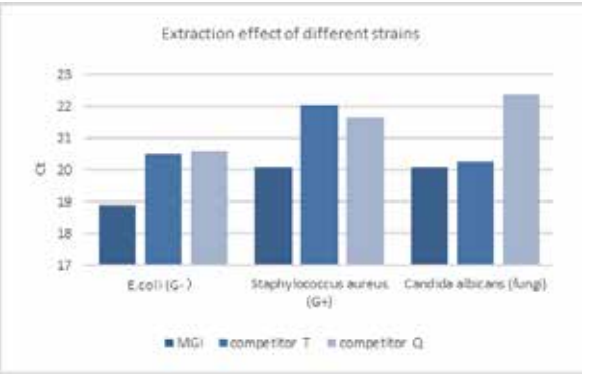
- Product Information

Specification	Storage temperature	Compatible Samples	Application
96 preps	Proteinase K and Magnetic Beads H:2-8 ℃; others: 15~25℃	Swab, serum, plasma, CSF (cerebrospinal fluid), BALF (alveolar lavage fluid), urine, sputum, bacterial culture fluid	PCR, RT-qPCR, Microarray and sequencing

Performance

High extraction efficiency

Comparing with competitor T and competitor Q， the results showed that MGIEasy microbial DNA extraction kit could efficiently extract microbial DNA from pathogenic bacteria such as E.coli (G -), Staphylococcus aureus (G+), and Candida albicans (fungi). And the extraction effect was better than the competitor.



Suitable for pathogen sequencing

The samples with know microorganism information and the simulated samples with 1% microbial community Meta DNA standard are used as samples. DNA is extracted from MGIEasy Microbiome DNA Extraction Kit, prepared libraries and sequenced on DNBSEQ-G50RS SE50, then analyzed by PFI software. All know microbials including bacteria and fungi are detected. 10 microbials (8 bacteria and 2 fungi) in the standard sample were ranked in top 10 during this identification, which shows the reliability of identification results.

Sample code	Sample type	Sample original pathogen information	Metagenome SE50 Sequencing	
			Detected Reads	Relative abundance
C2	Alveolar lavage fluid	*Legionella pneumophila*	485	8.930
		Acinetobacter baumannii	18	0.331
		Prevotella melaninogenica	6	0.110
C3	Alveolar lavage fluid	*Stenotrophomonas maltophilia*	9953	66.531
		Klebsiella pneumoniae	459	3.068
		Klebsiella variicola	401	2.747
		Pseudomonas aeruginosa	411	2.680
		Haemophilus parainfluenzae	62	0.414
		Acinetobacter baumannii	9	0.060
		Human betaherpesvirus 5	50	0.334
C15	sputum	*Streptococcus pneumoniae*	381	9.568
SH	Meta standard product + human tissue	*Lactobacillus fermentum*	35977	11.986
		Bacillus subtilis	24372	8.240
		Salmonella enterica	26543	8.813
		Listeria monocytogenes	25890	8.625
		Enterococcus faecalis	29122	9.702
		Staphylococcus aureus	22729	7.572
		Escherichia coli	3114	1.037
		Pseudomonas aeruginosa	3273	1.090
		Cryptococcus neoformans	6936	2.311
		Saccharomyces cerevisiae	4224	1.407

MGIEasy FFPE DNA Extraction Prepacked Kit (MGISP-NE32)

Easy、DNA extraction kit for complex tissue samples

This kit is designed for extracting high quality genomic DNA from FFPE sections, Paraf□fin-embedded blocks and Formalin fixed tissue with superparamagnetic beads tech□nology. Compatible with MGISP-NE32 perfectly. The extracted product can be used for PCR, real time PCR and Sequencing.

Extraction reagent

MGISP-NE32

- Highlight

To the maximum retain the DNA integrity

Non-toxic buffer, safe to human

The main component prepacked into plate, easy to use

- Product Information

Specification	Storage	Input	Elution volume
32 preps	2-8 °C	FFPE Section ≤ 8 pieces (10 μm, 0.5 cm * 0.5 cm) Paraffin embedded blocks ≤ 30 mg Formalin fixed tissue ≤ 30 mg	100 μL

Performance

Sequencing compatibility

Extracting DNA from 5 FFPE section samples using the kit, followed by library preparation and sequencing. according to the result, the 5 samples' sequencing data quality and analysis result fulfill the requirement, which indicated the DNA extracted by our kit can compatible with sequencing very well.

Table1 QC result for extracted DNA

Sample ID	Sample type	DIN	Conc(ng/μL)	Main size(bp)	OD260/230	OD260/280
S1	Cervix	2.9	28.6	1,919	1.71	1.82
S2	Colorectal	4.5	84.8	2241	1.94	1.58
S3	Thyroid gland	2.6	42.4	731	1.86	1.78
S4	Mammary gland	2.2	10.2	574	1.69	1.74
S5	Standard	7.9	32.4	24,312	1.82	1.9

Table2 Sequencing quality and analysis reuslt

Sample ID	Q30_ raw	Mapping_ Rate	Dup_ Rate	Coverage (1X)	Coverage (5X)	Coverage (10X)	Coverage (30X)	Total_ SNP	dbSNP_ rate	Total_ INDEL	dbINDEL_ Rate
S1	0.9441	99.71%	5.95%	99.07%	98.79%	97.05%	93.15%	22897	99.30%	879	89.42%
S2	0.9425	99.72%	6.32%	99.24%	99.07%	98.69%	98.26%	23633	99.27%	891	86.08%
S3	0.949	99.67%	5.37%	99.06%	98.47%	98.14%	97.24%	23515	99.02%	912	83.99%
S4	0.9273	99.72%	6.65%	99.04%	98.85%	98.25%	97.45%	23524	99.02%	914	84.79%
S5	0.9277	99.74%	3.32%	99.09%	98.92%	98.68%	98.49%	23633	99.42%	921	91.42%

*All the library are sequenced by MGISEQ-2000RS platform

Ordering Information

Type	Name	Model	Certificate	Specification	PN
Sample preservation kit	MGIEasy Stool Sample Collection Kit	-	RUO	1 prep	1000003702
	MGIEasy Saliva DNA Collection Kit	-	RUO	1 prep	1000025954
	MGIEasy Sample Collection and Release Reagent	SCR-100	RUO	100 PCS/Kit	1000027692
Virus nucleic acid extraction kit	MGIEasy Nucleic Acid Extraction Kit	T-1728	RUO	1728 preps	1000020261
	Nucleic Acid Extraction Kit		CEDoc	1728 preps	1000021043
	MGIEasy Nucleic Acid Extraction Kit	T-96	RUO	96 preps	1000020471
	Nucleic Acid Extraction Kit		CEDoc	96 preps	1000021042
	MGIEasy Nucleic Acid Extraction Kit	OP02-32	RUO	32 preps	1000023774
	Nucleic Acid Extraction Kit		CEDoc	32 preps	1000022606
	MGIEasy Nucleic Acid Extraction Kit	VDR02P-96	RUO	96 preps	1000023878
	Nucleic Acid Extraction Kit		CEDoc	96 preps	1000023877
	MGIEasy Nucleic Acid Extraction Kit	VDR03P-32	RUO	32 preps	1000023938
	Nucleic Acid Extraction Kit		CEDoc	32 preps	1000023937
	MGIEasy Nucleic Acid Extraction Kit	VDR03P-96	RUO	96 preps	1000024106
	Nucleic Acid Extraction Kit		CEDoc	96 preps	1000024108
	HPV DNA Extraction Kit	HD01T-96	CEDoc	96 preps	1000028433

RUO qualification kits are for Research Use Only; Not for Diagnostic Use.

Ordering Information

Type	Name	Model	Certificate	Specification	PN
Genomic DNA extraction kit	MGIEasy Magnetic Beads Blood Genomic DNA Extraction Kit	BDT-864	RUO	864 preps	1000019634
	MGIEasy Magnetic Beads Blood Genomic DNA Extraction Kit	BDT-96	RUO	96 preps	940-000633-00
	MGIEasy Blood Genomic DNA Extraction Prepacked Kit (MGISP-960)	-	RUO	96 preps	1000027848
	MGIEasy Blood Genomic DNA Extraction Prepacked Kit (MGISP-NE384)	-	RUO	96 preps	1000027847
	Nucleic Acid Extraction Kit	BDT-96	CEDoc	96 preps	940-000632-00
	Nucleic Acid Extraction Kit	BDT-864	CEDoc	864preps	940-000554-00
	MGIEasy Blood Genomic DNA Extraction Prepacked Kit (MGISP-NE32)	-	RUO	32preps	940-000071-00
	MGIEasy Genomic DNA Extraction Kit	-	RUO	48 preps	1000010524
	MGIEasy Stool Human DNA Extraction Kit	SD01T-96	RUO	96 preps	1000028534
	MGIEasy Stool Human DNA Extraction Kit	SD01T-1536	RUO	1536 preps	1000028535
	Nucleic Acid Extraction Kit	SD01T-96	CEDoc	96 preps	940-000155-00
	Nucleic Acid Extraction Kit	SD01T-1536	CEDoc	1536 preps	940-000157-00
	MGIEasy Stool Microbiome DNA Extraction Kit	SD02T-96	RUO	96 preps	940-000122-00
	MGIEasy Stool Microbiome DNA Extraction Kit	SD02T-384	RUO	384 preps	940-000123-00
	MGIEasy Microbiome DNA Extraction Kit	MD01T-96	RUO	96 preps	1000027955
	Nucleic Acid Extraction Kit	MD01T-96	CEDoc	96 preps	940-000639-00
	MGIEasy FFPE DNA Extraction Prepacked Kit (MGISP-NE32)	FDP-32	RUO	32 preps	940-000113-00
	Nucleic Acid Extraction Kit	FDP-32	CEDoc	32 preps	940-000262-00
	MGIEasy Circulating DNA Isolation Kit	-	RUO	192 preps	1000017017

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About MGI Tech Co., Ltd.

MGI Tech Co., Ltd. (referred to as MGI) is committed to building core tools and technology to lead life science through intelligent innovation. MGI focuses on R&D, production and sales of DNA sequencing instruments, reagents, and related products to support life science research, agriculture, precision medicine and healthcare. MGI is a leading producer of clinical high-throughput gene sequencers, and its multi-omics platforms include genetic sequencing, mass spectrometry, medical imaging, and laboratory automation.As of December 31, 2022, MGI has more than 2,800 employees, and 36% of whom are R&D personnel. Founded in 2016, MGI operates in more than 90 countries and regions, serving more than 2,000 customers. It has established scientific research and production bases, global training and service network in many countries and regions around the world. MGI is one of the two companies in the world that can independently develop and mass-produce clinical gene sequencers of low, medium and high-throughput from Gb to Tb, providing real-time, comprehensive, life course solutions, its vision is to lead life science innovation.

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Version: May 2023 | MGPD0013002-01

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