

MGIEasy Circulating DNA Extraction Mini Kit

This kit uses superparamagnetic particle purification technology to extract high-purity cfDNA from plasma and serum without the need for toxic phenol chloroform. Compatible with MGISP-960, MGISP-100, automated extractors to assist in applications such as NIPT.



Stable Extraction Yield

Good consistency in extraction yield with different plasma input levels



Widely Processed Volume

Capable of processing plasma and serum samples with a volume of 100 μ L~1mL



High Extraction Efficiency

The extraction yield fully meets downstream applications and can effectively remove PCR inhibition



High Adaptability

Adapt automation equipment, including automated sample preparation systems MGISP-960 and MGISP-100



Product Information

Product Name	MGIEasy Circulating DNA Extraction Mini Kit
Specification	Tube: 48 preps, 192 preps
Qualification	RUO, CE-IVD
Sample type	Plasma, serum
Validity period	12 months
Storage conditions	2°C~30°C
Input	Manual: 100 μ L~1mL; Automation: \leq 300 μ L
Elution volume	50 μ L -80 μ L
Adaptive Automation	MGISP-960: 80 min; MGISP-100: 100 min



Product Performance

Case 1

Sample type: plasma

Input: 200 μ L~1000 μ L

Sample Elution volume: 50 μ L

Extraction method: manual extraction

The extracted product was detected for leptin gene in plasma samples using qPCR

1) Under the same input, the extraction yield of MGI is better than that of brand M, which can be directly used for downstream reactions

2) As the sample input increases, the yield gradually increases, indicating that the extraction yield of MGI is linearly good.

3) According to the analysis of Agilent 2100 Bioanalyzer, MGIEasy Circulating DNA mini Extraction Kit has a clear main peak around -170bp, and the extraction efficiency is significantly higher than that of brand M. It demonstrating superior extraction performance.

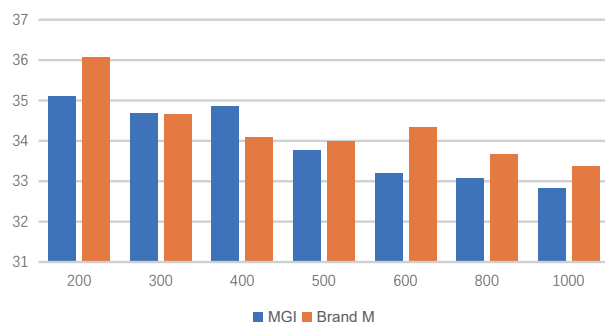


Figure 1 Comparison of CT values for different volumes of plasma input

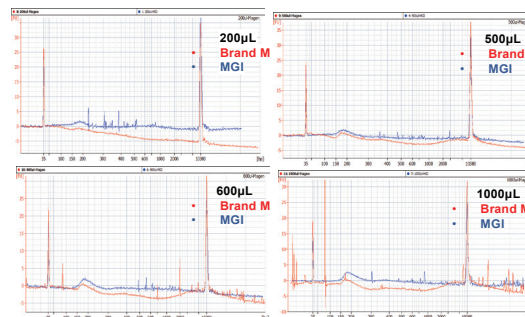


Figure 2 Comparison chart of 2100 results for different volumes of plasma input

Case 2

Sample type: real plasma (sample 1), 10% plasma T21 positive reference (sample 2), 10% plasma T13 positive reference (sample 3).

Sample input volume: 300 μ L

Sample elution volume: 50 μ L

Extract products for library preparation of free DNA (MGIEasy Cell-free DNA Library Prep Set) and sequencing (DNBSEQ-G400 SE35)

Result: The sample consistency rate, positive rate, and negative rate of MGIEasy Circulating DNA Extraction Mini Kit were 100%. Compared to brand M, the detection accuracy is higher and the performance is more reliable.

Table 1 Comparison of Circulating DNA Extraction Max Kit and Brand M Sequencing Results and Sample Consistency Rate

number	Expected results	kit	Sample quality control	Test(chr13)	Test(chr18)	Test(chr21)
sample1	Negative	MGI	Pass (8/8)	Not detected	Not detected	Not detected
		Brand M	Not Pass (7/8)	Not detected	Not detected	T21(7/8)
sample2	T21 positive	MGI	Pass (4/4)	Not detected	Not detected	T21(4/4)
		Brand M	Pass (2/2)	Not detected	Not detected	T21(2/2)
sample3	T13 positive	MGI	Pass (2/2)	T13(2/2)	Not detected	Not detected
		Brand M	Pass (2/2)	T13(2/2)	Not detected	Not detected

Sample consistency rate			Positive rate		Negative rate		
MGI		100% (14/14)		100% (6/6)		100% (8/8)	
Brand M		91.6% (11/12)		100% (6/6)		58.3% (7/8)	



Ordering Information

Name	Item NO.	Model	Specifications	Unit	Qualifications
MGIEasy Circulating DNA Extraction Mini Kit	940-000320-00	CDT-48	48 preps	Kit	RUO
Nucleic acid extraction Kit	940-000321-00	CDT-48	48 preps	kit	CE-IVD
MGIEasy Circulating DNA Extraction Mini Kit	940-000318-00	CDT-192	192 preps	Kit	RUO
Nucleic acid extraction Kit	940-000319-00	CDT-192	192 preps	Kit	CE-IVD

MG Tech Co.,Ltd.

Building 11, Beishan Industrial Zone, Yantian District, Shenzhen, China

+86-4000-688-114

Version: December 2024

en.mgi-tech.com

MGI-service@mgi-tech.com

