

# MGEasy Circulating DNA Extraction Max Kit

This kit uses superparamagnetic particle purification technology to extract high-purity cfDNA from plasma, serum, and urine without the need for the use of toxic phenol chloroform, compatible with MGISP-NEX automated extraction instrument. The extracted DNA can be used for PCR RT-qPCR, Sequencing, etc.



## High Extraction Efficiency

Can effectively enrich DNA fragments of 100-500bp and remove large DNA fragments



## Wide Sample Range

Capable of processing biological fluid samples such as plasma, serum, and urine



## Flexible Input Volume

cfDNA can be extracted from 1-10mL serum/plasma sample



## Automated Adaptation

Adapt to the Automated Sample Preparation System MGISP-NEX



## Product Information

Product Name	MGEasy Circulating DNA Extraction Max Kit
Specification	50 preps
Qualification	RUO, CE-IVD
Sample type	Plasma, serum, urine
Validity period	12 months
Storage conditions	2°C~30°C
Input	Manual: 1mL~10mL (Serum/plasma) , 20mL (urine) ; MGISP-NEX: 2mL
Elution volume	50µL -80 µL
Adaptive automation	MGISP-NEX: 90 min



## Product Performance

### Case 1

Sample type: 2mL plasma, 20mL urine

Method: Using MGIEasy Circulating DNA Extraction Max Kit and Brand Q and Brand N to extract cfDNA from plasma and urine samples

Result: As shown in Figure 2100, regardless of plasma and urine samples, MGIEasy Circulating DNA Extraction Max Kit has a clear main peak around -170 bp, and the extraction efficiency is significantly higher (2-5 times) than that of Brand Q and Brand N.

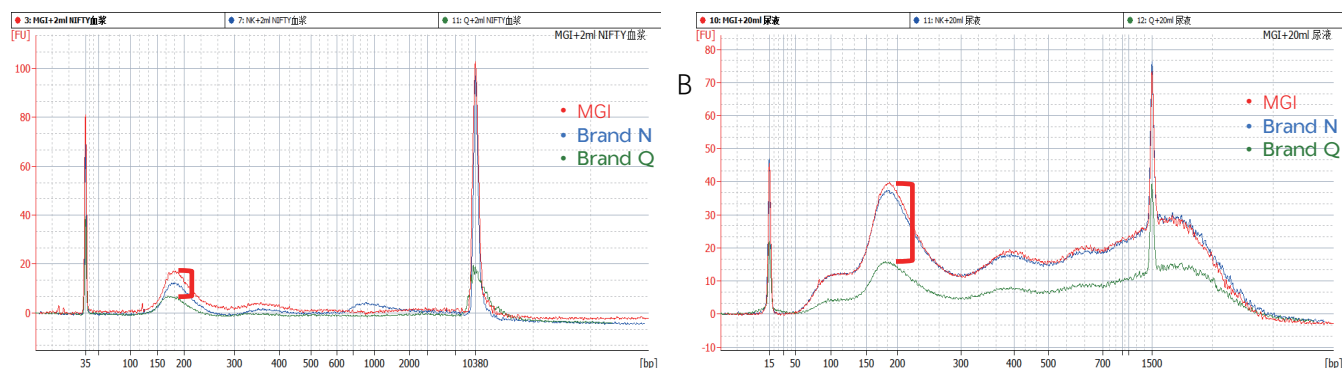


Figure 1 Comparison of 2100 Results between MGIEasy Circulating DNA Extraction Max Kit and Brands N and Q

### Case 2

Sample type: Simulated sample of ctDNA reference plasma from GeneWell lung cancer

Input volume: 2 mL

Elution volume: 60  $\mu$ L

Results: Using MGIEasy Circulating DNA Extraction Max Kit and Brand N reagents extract cfDNA. The extracted cfDNA was used for library construction (MGIEasy Cell-free DNA Library Prep Set) and sequencing (DNBSEQ-G400, PE150), with a sequencing depth of 300x. The displayed Results indicate that

- 1) The extraction and library concentration of MGIEasy Circulating DNA Extraction Max Kit are higher than Brand N.
- 2) Under the same input amount, the detection rate of the 1% mutant lung cancer reference substance extracted using MGIEasy Circulating DNA Extraction Max Kit was 100%, while there was missed detections for Brand N.

Table 1 Comparison of Extraction and library Concentration between MGIEasy Circulating DNA Extraction Max Kit and Brands N

60 $\mu$ L elution		
Extraction concentration (ng/ $\mu$ L)	MGI	Brand N
1% mutation	1.04	0.62
10 $\mu$ L library		
library concentration (ng/ $\mu$ L)	MGI	Brand N
1% mutation	23.4	20.7

Table 2 Comparison of Detection Rates between MGIEasy Circulating DNA Extraction Max Kit and Brands N

Mutation site	MGI	Brand N
T790M_c.2369C>T	●	●
E545K_c.1633G>A	●	●
G12D_c.35G>A	●	●
Q61K_c.181C>A	●	●
A146T_c.436G>A	●	●
L858R_c.2573T>G	●	●



## Ordering Information

Name	Item NO.	Model	Specifications	Unit	Qualifications
MGIEasy Circulating DNA Extraction Max Kit	940-000324-00	CDT-50	50 preps	Kit	RUO
Nucleic acid extraction Kit	940-000315-00	CDT-50	50 preps	Kit	CE-IVD

MG Tech Co.,Ltd.

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

+86-4000-688-114

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en.mgi-tech.com

MGI-service@mgi-tech.com

