

MGIEasy Circulating DNA Isolation Kit

The MGIEasy Circulating DNA Isolation Kit is designed for isolating high purity cell-free DNA from human plasma using superparamagnetic bead technology, which avoids using the toxic phenol chloroform during extraction. The turn-around-time is less than 45 minutes. The extracted product can be used to PCR, real time PCR, Arrays and NGS.



Features

High efficiency of cfDNA recovery

- Higher yield than competitor

High success rate

- The success rate of library preparation using the cfDNA extracted by the kit is very high

Automation friendly

- Compatible with MGI automation platform

Good linear of the yield

- the yield almost consistent with different input volume

Performance

Sample: plasma

Method: The sample was extracted at different ambient temperature, the extracted cfDNA was detected by Qubit.

Result: The MGI's kit shows higher yield than competitor at 3 different ambient temperature

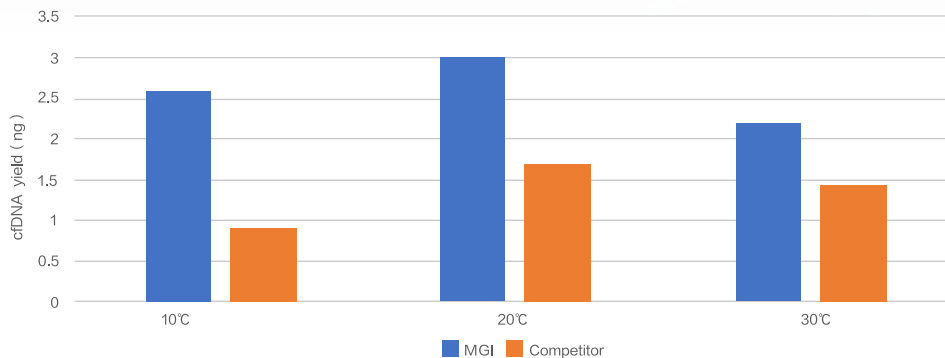


Figure 1 The cfDNA yield comparison between MGI and competitor

Sample: plasma

Method: The extracted cfDNA was used for library preparation and sequencing.

Result: The library preparation success rate is over 99.3%, library concentration is 21ng/ul on average, and all the library sequencing successfully.

Table 1 sequencing data quality

ID	Effective reads number(M)	Effective rate	Total reads(M)	Q30
1	>7.5	70.2%	332	86.3%
2	>6.23	72.0%	280	85.1%
3	>9.77	74.8%	409	89.0%
4	>6.97	71.7%	313	86.1%
5	>8.5	75.0%	366	89.4%
6	>8.12	73.7%	333	87.2%
7	>7.4	71.8%	331	84.7%
8	>7.9	72.1%	355	86.2%
9	>9.3	72.2%	352	86.7%



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Sample: plasma

Method: The extracted cfDNA was detected by Qubit.

Result: The yield per 100 μ L sample is similar, which means the yield of 300 μ L input is almost consistent with the yield of 600 μ L input.

Table 2 The cfDNA yield with different input volume

Sample ID	Input volume (μ L)	cf DNA Conc (ng/ μ L)	Total mass (ng)	yield per 100 μ L sample (ng)
S1	300	0.4	6	2
S2	300	0.4	6	2
S3	300	0.5	7.5	2.5
S4	300	0.37	5.6	1.9
S5	300	0.42	6.3	2.1
S1	600	0.72	11.5	1.9
S2	600	0.73	11.6	1.9
S3	600	0.74	11.8	2
S4	600	0.82	13.1	2.2
S5	600	0.77	12.3	2.1

Product Specification

TAT	~45min
Specification	192rxn
Sample type	Plasma
Input volume	300 μ L for manual, 220 μ L for automation
Compatible automation system	MGISP-100, MGISP-960
Throughput	16 samples per run for MGISP-100, 96 samples per run for MGISP-960

Order Information

Kit Name	Cat.No
MGIEasy Circulating DNA Isolation Kit	1000017017

Contact Us

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