



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

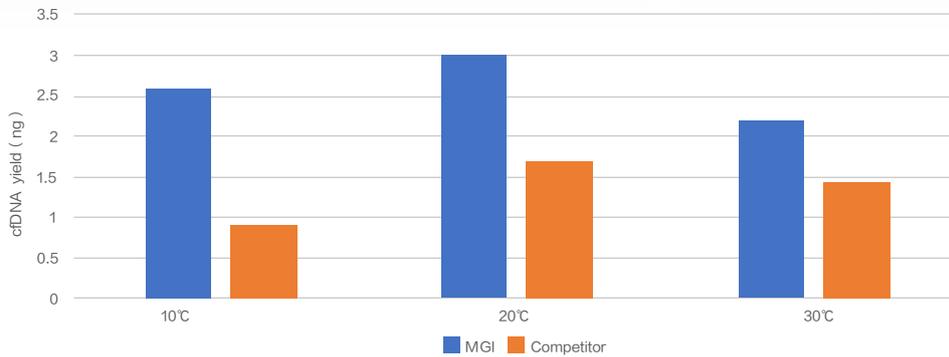


Figure 1 The cfDNA yield comparison between MGI and competitor

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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