

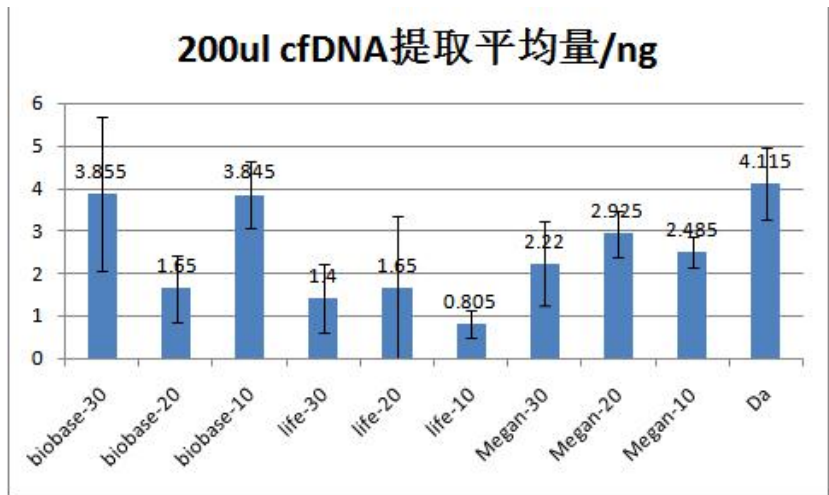
MagPure Circulating DNA Kit

2.1 For 200ul Plasma

Magen Kit Vs Life Kit A29319 : 200ul Plasma DNA

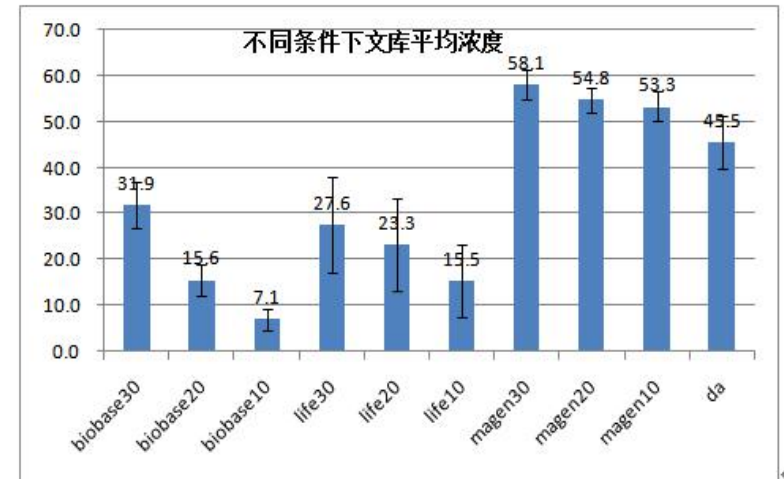
200ul cfDNA average yield/ng

200ul cfDNA提取平均量/ng



average ctDNA conc. in different conditions

不同条件下文库平均浓度



Testing samples: 200ul plasma samples from 10 different pregnant women

Testing products: Biobase, Life A29319, Magen 12919AN, Magen DA(12909)

Working temperature: 10°C, 20°C, 30°C

Testing method: use Qubit testing cfDNA concentration, build DNA library and test concentration

Figure left: 10 plasma samples average concentration in different temperatures by Qubit.

Figure right: 10 plasma samples average concentration in different temperatures by library building.

The testing results show that Magen 12919AN and DA-12909 both get higher cfDNA yield than Life A29319. cfDNA yield is 12~20ng/ml from every ml plasma. Magen gets higher library conc. than then other two companies.

(The above datas are provided by a Noninvasive company in China)

MagPure Circulating DNA Kit

2.2: 400~600ul Plasma

| Sample | Plasma Vol. | Elution Vol. | Magen cfDNA conc. ng/ul | Magen cfDNA yield ng |
|---|-------------|--------------|-------------------------|----------------------|
| P-1 | 600ul | 30ul | 0.482 | 14.46 |
| P-2 | 600ul | 30ul | 0.284 | 8.52 |
| P-3 | 600ul | 30ul | 0.206 | 6.18 |
| N-1 | 600ul | 30ul | 0.102 | 3.06 |
| N-2 | 600ul | 30ul | 0.59 | 17.7 |
| N-3 | 600ul | 30ul | 0.12 | 3.6 |
| P-4 | 600ul | 30ul | 0.116 | 3.48 |
| P-5 | 600ul | 30ul | 0.164 | 4.92 |
| P-6 | 600ul | 30ul | 0.574 | 17.22 |
| N-4 | 600ul | 30ul | 0.188 | 5.64 |
| N-5 | 600ul | 30ul | 0.174 | 5.22 |
| N-6 | 600ul | 30ul | 0.208 | 6.24 |
| N-7 | 600ul | 30ul | 0.116 | 3.48 |
| N-8 | 600ul | 30ul | 0.112 | 3.36 |
| N-9 | 600ul | 30ul | 0.172 | 5.16 |
| N-10 | 600ul | 30ul | 0.102 | 3.06 |
| P-7 | 600ul | 30ul | 0.2 | 6 |
| P-8 | 600ul | 30ul | 1.52 | 45.6 |
| P-9 | 600ul | 30ul | 0.296 | 8.88 |
| P-10 | 600ul | 30ul | 0.398 | 11.94 |
| P means tumour plasma N means common people plasma | | | | |

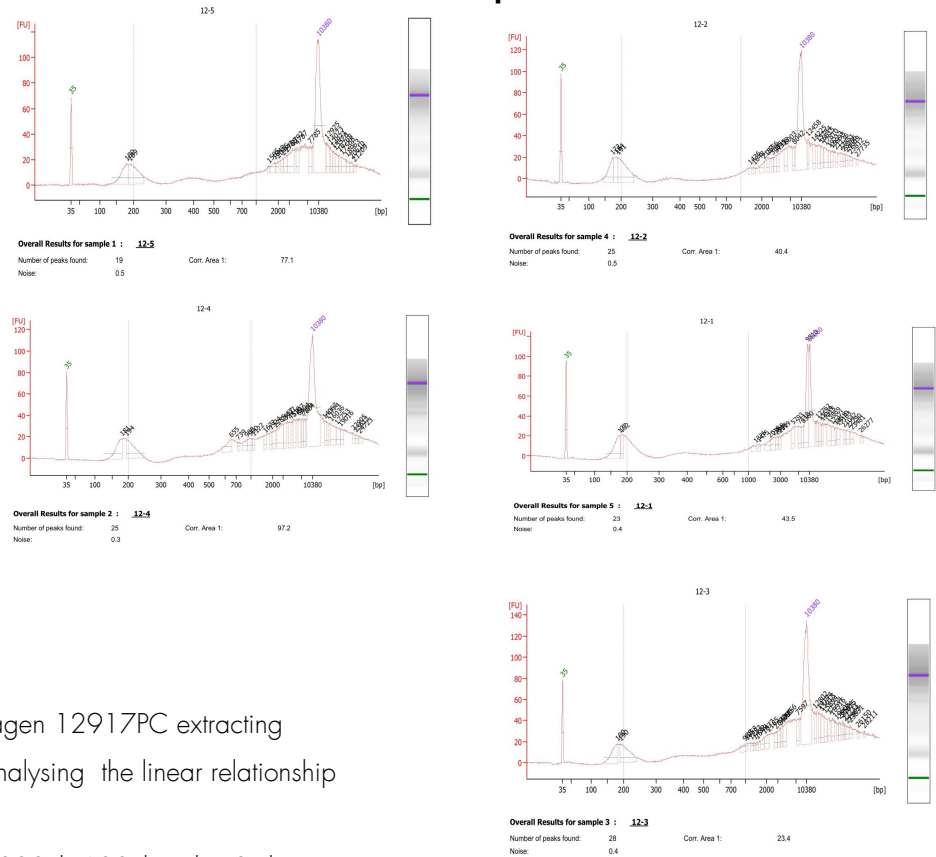
| sample ID | Plasma Vol. | Elution Vol. | Conc. ng/ul | DNA Yield ng |
|-----------|-------------|--------------|-------------|--------------|
| Plasma 1 | 400ul | 30ul | 0.326 | 9.78 |
| Plasma 2 | 400ul | 30ul | 0.342 | 10.26 |
| Plasma 3 | 400ul | 30ul | 0.242 | 7.26 |
| Plasma 4 | 400ul | 30ul | 0.0946 | 2.838 |
| Plasma 5 | 400ul | 30ul | 0.177 | 5.31 |
| Plasma 6 | 400ul | 30ul | 0.218 | 6.54 |
| Plasma 7 | 400ul | 30ul | 0.316 | 9.48 |
| Plasma 8 | 400ul | 30ul | 0.302 | 9.06 |
| Plasma 9 | 400ul | 30ul | 0.454 | 13.62 |
| Plasma 10 | 400ul | 30ul | 0.348 | 10.44 |
| Plasma 11 | 400ul | 30ul | 0.18 | 5.4 |
| Plasma 12 | 400ul | 30ul | 0.33 | 9.9 |
| Plasma 13 | 400ul | 30ul | 0.24 | 7.2 |
| Plasma 14 | 400ul | 30ul | 0.28 | 8.4 |
| Plasma 15 | 400ul | 30ul | 0.306 | 9.18 |
| Plasma 16 | 400ul | 30ul | 0.212 | 6.36 |
| Plasma 17 | 400ul | 30ul | 0.131 | 3.93 |
| Plasma 18 | 400ul | 30ul | 0.246 | 7.38 |

MagPure Circulating DNA Kit

2.3: 0.3~1.2ml Plasma

| No. | Plasma μL | Conc. $\text{ng}/\mu\text{L}$ | Elution μL | DNA yield ng | DNA Conc. $\text{ng}/100\mu\text{L}$ | Average Conc. $\text{ng}/100\mu\text{L}$ |
|-----|----------------------|-------------------------------|-----------------------|-----------------------|--------------------------------------|--|
| 1 | 300 | 0.402 | 15 | 6.03 | 2.01 | 2.1 |
| 2 | 300 | 0.402 | 15 | 6.03 | 2.01 | |
| 3 | 300 | 0.5 | 15 | 7.5 | 2.5 | |
| 4 | 300 | 0.37 | 15 | 5.55 | 1.85 | |
| 5 | 300 | 0.42 | 15 | 12.3 | 4.3 | |
| 1 | 600 | 0.72 | 15 | 10.8 | 1.8 | 1.9 |
| 2 | 600 | 0.726 | 15 | 10.89 | 1.815 | |
| 3 | 600 | 0.74 | 15 | 11.1 | 1.85 | |
| 4 | 600 | 0.82 | 15 | 12.3 | 2.05 | |
| 5 | 600 | 0.77 | 15 | 11.55 | 1.925 | |
| 1 | 1200 | 1.33 | 15 | 19.95 | 1.6625 | 1.7 |
| 2 | 1200 | 1.19 | 15 | 17.85 | 1.4875 | |
| 3 | 1200 | 1.36 | 15 | 20.4 | 1.7 | |
| 4 | 1200 | 1.32 | 15 | 19.8 | 1.65 | |
| 5 | 1200 | 1.57 | 15 | 23.55 | 1.9625 | |

Agilent 2100 analyze results for cfDNA extracted from 1.2ml plasma



Take 300ul, 600ul, 1.2ml plasma from 5 different pregnant women, use Magen 12917PC extracting cfDNA. Elution volume is 15ul. Test DNA amount by Qubit. This step is for analysing the linear relationship between DNA amount and different sample volumes.

The test results show that Magen 12917PC gets good linear relationship on 300ul, 600ul and 1.2ml.

The DNA average conc. reduce on 1.2ml sample is because too low elution volume. DNA is not eluted completely.

MagPure Circulating DNA Kit

2.4. 0.3ml Plasma by KingFisher Flex

| Sample No. (300ul plasma) | KingFisher Flex extraction (50ul elution) | | Hand make extraction(50ul elution) | |
|------------------------------|---|-----------------------------------|------------------------------------|-----------------------|
| | Not add Carrier RNA | Add 100ng Carrier RNA | Not add Carrier RNA | Add 100ng Carrier RNA |
| 1 | 0.028ng/ul (ctDNA Conc./: 22.2) | 0.11ng/ul (ctDNA Conc.: 28.4) | | |
| 2 | 0.0243g/ul (ctDNA Conc.: 15.1) | 0.182ng/ul (ctDNA Conc.: 30.2) | | |
| 3 | 0.038ng/ul (ctDNA Conc.: 17.6) | 0.097ng/ul (ctDNA Conc.: 29.2) | | |
| 4 | 0.056ng/ul (ctDNA Conc.: 20.0) | 0.116ng/ul (ctDNA Conc.: 21.8) | | |
| 5 | 0.051ng/ul | 0.131ng/ul | 0.135ng/ul | 0.127ng/ul |
| 6 | 0.0562ng/ul | 0.0868ng/ul | 0.072ng/ul | 0.0895ng/ul |
| 7 | 0.0736ng/ul | 0.087ng/ul | 0.0912ng/ul | 0.0892ng/ul |
| 8 | 0.0544ng/ul | 0.088ng/ul | 0.0824ng/ul | 0.0888ng/ul |
| 9 | 0.0632ng/ul | 0.102ng/ul | 0.105ng/ul | 0.125ng/ul |

Test results show that when use cfDNA extraction machines like KingFisher extracting DNA, adding Carrier RNA will helps get higher and more stable DNA yield.

And it also gets higher ctDNA concentration. When use hand make extraction, add small amount Carrier RNA does not affect DNA Qubit data.

So we recommend on adding Carrier RNA when use KingFisher Flex/32 series machines. It will help to get higher and more stable DNA yield.

Note:

Different Cat. number of MagPure Circulating DNA Kits are similar products. They are designed for users different sample size, different machines.

You can choose the size that you need