

The cfDNA kit is intended to determine the size profile of double stranded DNA samples directly from 100µL of plasma samples in the 100 to 1500bp range with the Multi-channel BIABooster system. The kit is designed for 40 samples and associated standards.

Kit Content



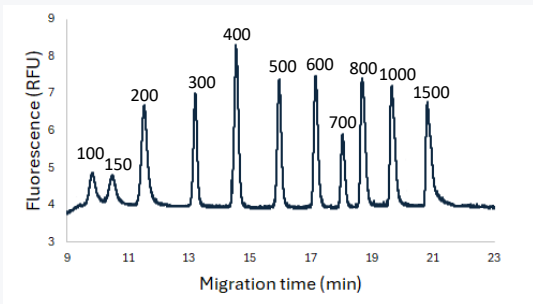
cfDNA Kit (ref : 23-BBCNA-cfDNA)

- Lysis buffer
- Proteinase K
- RNase 1U/µl
- Capillary coating solution
- Running buffer A
- Running buffer B
- Capillary conditioning solution
- Capillary washing solution
- Fluorescent dye
- DNA ladder

40 micro-spin filter 0.45 µm

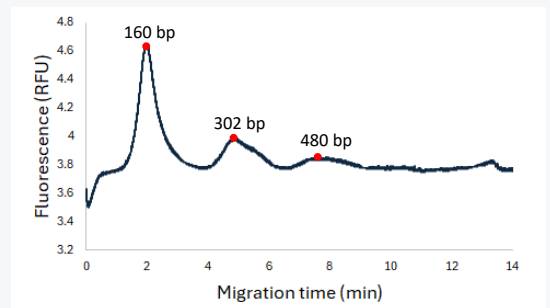
DNA separation

cfDNA within human plasma is first released from vesicles and histones by proteinase K digestion and detergent. It is then analysed using the BIABooster system. In each channel, a standard ladder is analysed every 5 samples to convert the fluorescence trace into a profile giving mass concentration according to DNA size.



Standard ladder used in the cfDNA kit

The ladder is composed of 11 bands from 100bp to 1500bp. The total concentration is 32 pg/µL.



Typical cfDNA size profile of a healthy donor directly measured from a plasma sample

Specifications

| | |
|-------------------------------------|---------------------------------|
| Sample type | Plasma samples |
| Size range | 0.1 – 1.5kb |
| LOD, standard method ⁽¹⁾ | 50pg/mL à 100bp et 5pg/mL à 1kb |
| Sample volume | 10µL (1µL injected) |
| Sample salt concentration | up to 130mM |
| Sizing Accuracy | +/- 3% |
| Sizing Reproducibility | < 3% CV |
| Quantification Accuracy | +/- 20% |
| Quantification Precision | < 20% CV |
| Dynamic range ⁽²⁾ | 800 |

(1) Limit of Detection: the concentration for a single fragment which gives a signal-to-noise ratio of 3 (peak height). For smears, the LOD is usually 20-50 times higher.

(2) Dynamic Range: ratio between the highest and the lowest concentrations giving a quantifiable result.