

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 BIABooster-CE system. The kit is designed for 50 samples, and associated standards.

Kit Content

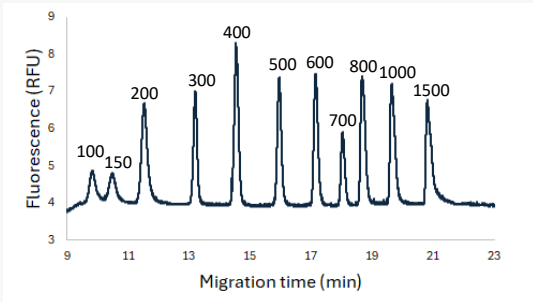


cfDNA Kit (ref : 16-BB-cfDNA)

- Lysis buffer, 0.5 mL
 - Proteinase K, 0.65 mL
 - RNase 1U/µl, 65 µL
 - Capillary coating solution, 30 ml
 - Running buffer A, 40 mL
 - Running buffer B, 30 mL
 - Capillary conditioning solution, 10 mL
 - Capillary washing solution, 30 mL
 - Fluorescent dye, 10 tubes of 25 µL
 - DNA ladder, 3 tubes of 55 µL
- 50 micro-spin filter 0.45 µm
65 glass inserts

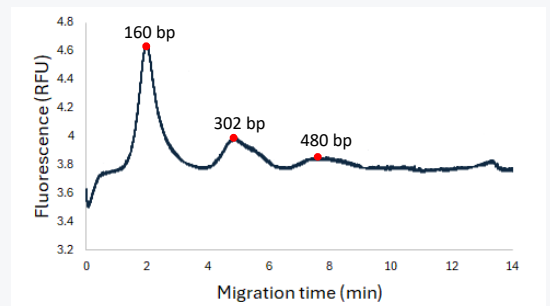
DNA separation

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. A reference 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.