

# cfDNA KIT MULTI-CHANNEL BIABooster

The cfDNA kit is aimed to determine the size profile of double stranded DNA directly from plasma samples in the 100 to 1500 bp range<sup>(1)</sup> with the Multi-channel BIABooster

The kit is designed for 40 samples and associated standards

## KIT CONTENT

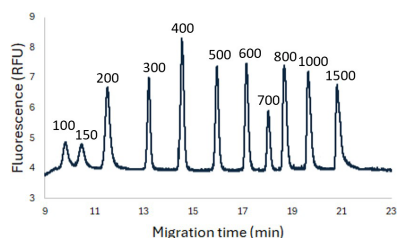


## cfDNA Kit (ref : 23-BBCNA-cfDNA)

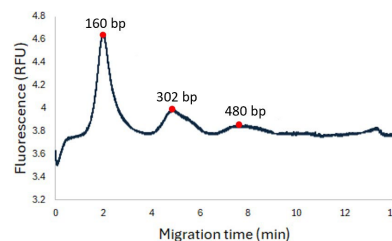
- Lysis buffer
  - Proteinase K
  - RNase 1U/μL
  - Capillary coating solution
  - Running buffer A
  - Running buffer B
  - Capillary conditioning solution
  - Capillary washing solution
  - Fluorescent dye
  - DNA ladder
- 40 micro-spin filters 0.45 μm

## 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 100 bp to 1500 bp  
The total concentration is 32 pg/μL



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

## SPECIFICATIONS

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

(1) 100μL of plasma is recommended for homogeneous pre-treatment of the sample. 10μL is placed in the injection vial and 1μL of the sample is injected into the BIABooster capillary device.

(2) 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

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