

Human Cell-Free DNA Control

Cell-Free DNA Isolated from Normal Human Blood Donors

Human Plasma cfDNA Reference Control and Standard:

In contrast to traditional tissue biopsy, liquid biopsy is technically non-invasive and has been implemented successfully as diagnostic and monitoring tools for early disease detection, such as early-stage cancer. This approach takes advantage of fragmented DNA released from dying tumor cells that eventually circulate in the bloodstream or other bodily fluids. This truncated DNA, usually less than 200bp, is referred to as cell-free DNA (cfDNA) and can readily be extracted from plasma and serum via magnetic bead-based kits.

BioChain has long been providing large amounts of cfDNA (nanogram to microgram scales) over the years to researchers upon request. However, demand has greatly accelerated in recent years. Therefore, BioChain is now offering high-quality native human cfDNA from a pool of healthy/normal individuals for use as a reference control and standard. As opposed to synthetic or mixtures of sheared cell line DNAs, this bona-fide cfDNA will serve as an impartial baseline/reference to cell-free circulating tumor DNA for various diseases in humans, and to support the analytical validation and clinical deployment of your PCR and NGS-based liquid biopsy assays.

Key Features

- Native human cfDNA isolated from a pool of healthy/normal donors
- Featuring physiological condition of circulating DNA
- Offered at a high concentration (e.g. 10ng/ul)
- Negligible traces of genomic DNA
- cfDNA validated by BioAnalyzer and concentration determined by Qubit dsDNA high sensitivity kit

Applications:

- Ideal PCR and NGS control for cfDNA genomic alteration analysis, epigenetic analysis, and fragment analysis
- Baseline control for biomarker discovery
- Protocol optimization for cfDNA extraction
- QC standards

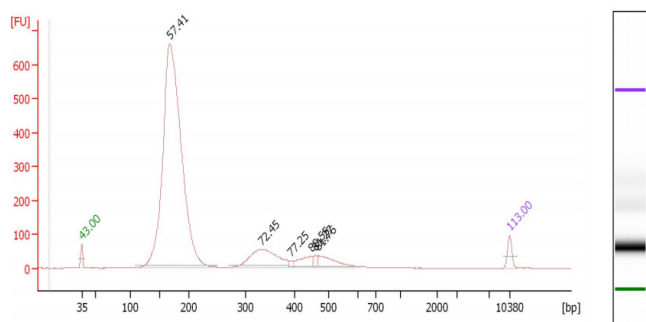


Figure 1. The integrity of cfDNA was demonstrated by a high sensitivity bioanalyzer profile - where a dominant mono-nucleosome DNA with a peak around 170bp in size, and often di-nucleosome and tri-nucleosome cell-free DNA fractions, are present. No genomic DNA contamination was observed.