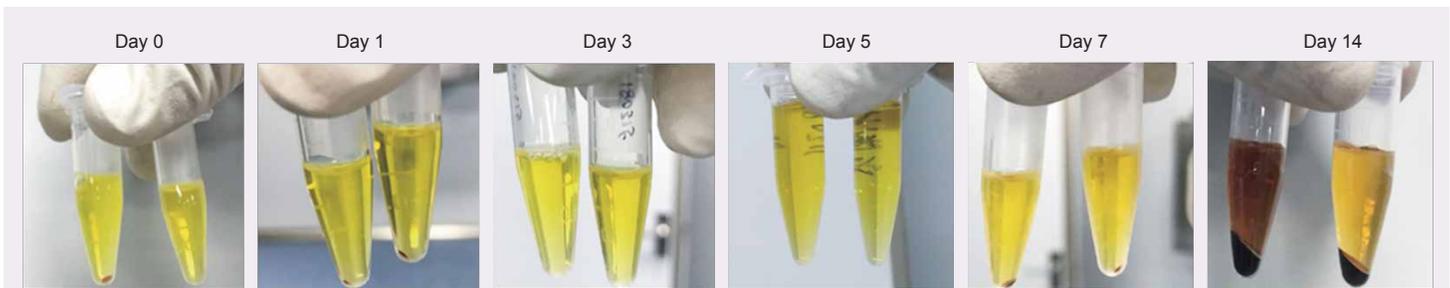


# QuantiDNA™ Cell-Free DNA Blood Collection Tube

*Stabilize cfDNA for Downstream Genetic Analysis*

QuantiDNA™ Cell-Free BCT (Blood Collection Tube) is used as direct blood drawing tube for reliable blood collection, storage, and shipping before isolating cell-free DNA (cfDNA) for downstream genetic analysis in clinical labs. Unlike traditional EDTA test tubes, our cfDNA blood collection tubes can stabilize the plasma cfDNA for up to 14 days at 6 to 37°C without significant loss of cfDNA yield and integrity or contamination from nuclear DNA from white blood cells.

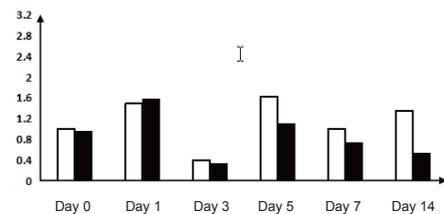
\*QuantiDNA™ Cell-Free BCT are Research-Use-Only and shall not be used for In vitro diagnostic- procedures.



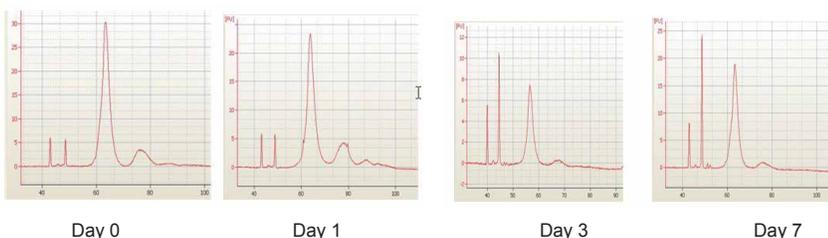
The plasma color comparison between Streck (left in the pair) and DiaCarta (right in the pair) blood collection tubes after storing blood samples for 0, 1, 3, 5, 7, and 14 days at room temperature.

## cfDNA Yield and Integrity are Comparable between DiaCarta and Streck Tubes

The critical parameters for cfDNA quality check are DNA yield and integrity. Poor quality of cfDNA contains a high molecular weight of genomic DNA from lysed white blood cells and degraded cfDNA due to lack of DNase inhibition during storage. Since the natural half-life for cfDNA is only 16 minutes and the average size of cfDNA is 166 bp, **stabilizing cfDNA during storage and shipping for better yield and integrity becomes critical for downstream analysis.**



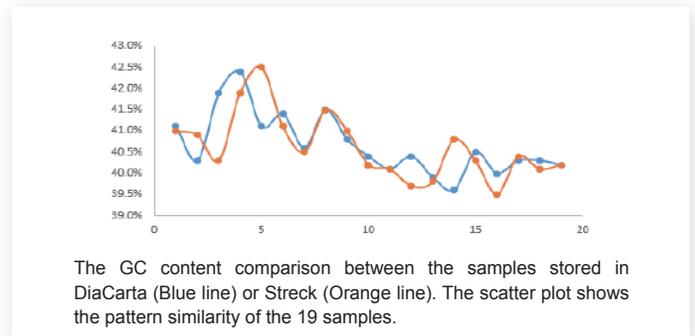
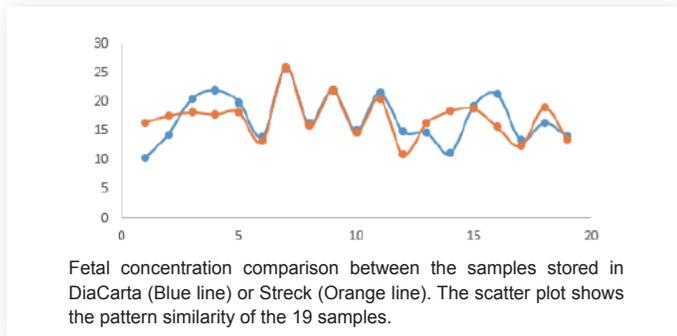
Comparison of cfDNA concentration (in ng/ml) after isolation from DiaCarta (left in pair) tube or Streck tube (right in pair) samples at different days of storage.



The cfDNA isolated from samples stored in DiaCarta tubes for different days were used for library construction. The cfDNA sizes were examined on Agilent Bioanalyzer 2100. The cfDNA sizes are within the range of 160 to 180 bp for all the samples tested.

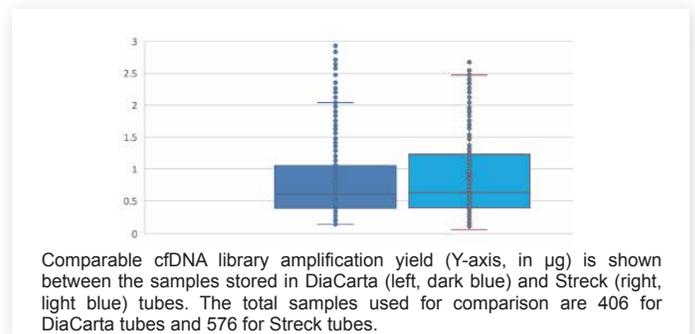
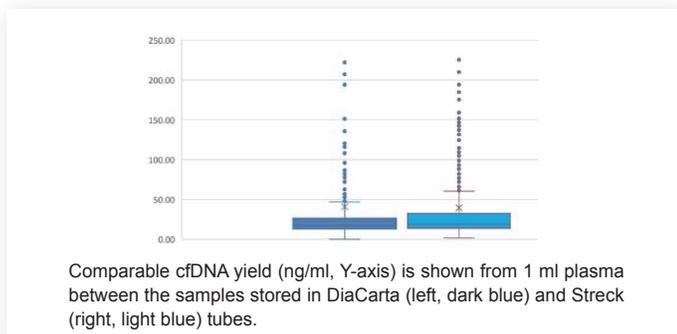
## Downstream Analysis: Prenatal Analysis by Third-Party Organization

cfDNA is often used for prenatal analysis. A third-party prenatal analysis company has been used to compare the cfDNA isolated from 19 samples stored in DiaCarta and Streck tubes. All the samples do not have the problems of hemolysis. All samples were checked for library construction concentration, fragment length, fetal%, and GC%, all meeting the testing criteria.



## Downstream Analysis: Tumor Genetic Analysis by a Third-Party Organization

cfDNA is commonly used for downstream cancer genomic analysis, including single gene mutation or genomic analysis. For genomic analysis, the total cfDNA was isolated from plasma and the cfDNA was used for library construction before being sequenced by the next-generation sequencing (NGS) technique.



## Ordering Information

**Product Name:** QuantiDNA™ Cell-Free DNA BCT

**Pack Size:** 1 Tube

**Intended Use:** Research Use Only

**Catalog:** DC-12-0001R

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