

# DNASTABLE Blood

## COST EFFECTIVE BLOOD STORAGE

### Store Whole Blood and Buffy Coat at Room Temperature

DNASTABLE® Blood is designed for the immediate stabilization of DNA in blood and buffy coat at room temperature. The DNASTABLE Blood matrix preserves DNA in blood samples without degradation by forming a thermostable barrier as it dries, effectively “shrink-wrapping” the DNA in a protective coating. DNASTABLE Blood is available in two convenient formats: pre-dried in tubes and multi-well plates (DNASTABLE Blood) and liquid (DNASTABLE® Blood LD). When stored in DNASTABLE Blood, DNA is preserved at ambient temperatures for at least 12 years.\* DNA can be extracted by simple rehydration of the dried samples followed by DNA isolation using commercially available DNA extraction kits.

#### Benefits:

- Protection and stabilization of blood DNA at ambient temperatures
- Elimination of cold-storage/refrigeration costs
- Eco-friendly storage solution
- Smart back-up storage solution
- High quality DNA samples for use in all downstream applications

Cost effective storage

Secured Long term storage

Ideal for sample archiving

Environmentally friendly

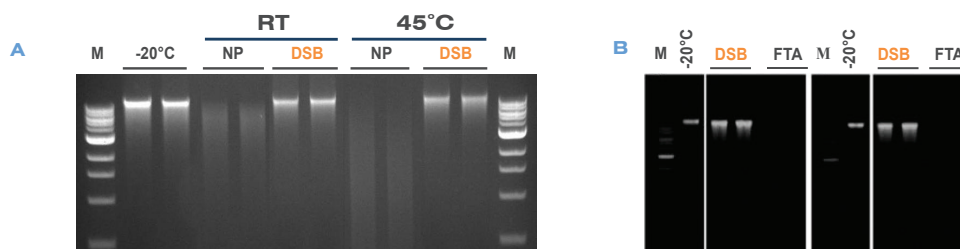
High-quality DNA

No PCR or qPCR inhibition

### Stabilization of DNA in whole blood at room temperature

The storage reagent rapidly permeates cellular structures and membranes to stabilize and protect genomic DNA in blood cells for at least 12 years at room temperature

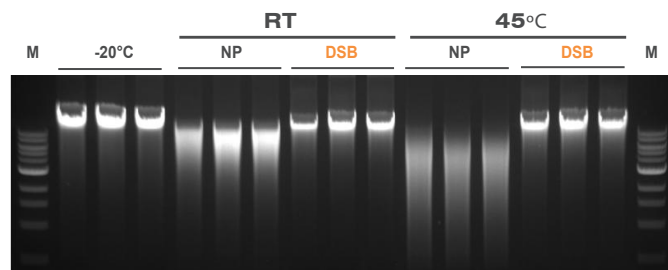
\*based on accelerated aging studies in 48-well plate format



**Figure 1A. Blood DNA preserved at room temperature for 12 years\*.** Human whole blood samples (200  $\mu$ L) were stored for 31 months under various conditions: at  $-20^{\circ}\text{C}$  (control); in DNASTABLE Blood (DSB) at  $25^{\circ}\text{C}$  (RT) or  $45^{\circ}\text{C}$  ( $\sim$ 12 years of storage at room temperature; accelerated aging study); or storage at  $45^{\circ}\text{C}$  without protection (NP). After blood rehydration, genomic DNA was extracted and purified using the QIAamp® DNA Blood Mini Kit (QIAGEN). DNA eluates (10  $\mu$ L) were analyzed on a 0.8% agarose gel. M: markers.

**Figure 1B. Higher DNA recovery from whole blood stored in DNASTABLE blood vs FTA paper.** Duplicate human whole blood samples (200  $\mu$ L) were stored for 12 months under various conditions: at  $-20^{\circ}\text{C}$  (control); in DNASTABLE Blood (DSB) at  $45^{\circ}\text{C}$  ( $\sim$ 5 years of storage at room temperature\*); or at  $25^{\circ}\text{C}$  on FTA paper (FTA). After blood rehydration, genomic DNA was extracted and purified using the QIAamp DNA Blood Mini Kit. DNA eluates (10  $\mu$ L) were analyzed on a 0.8% agarose gel. (M = 1kb ladder).

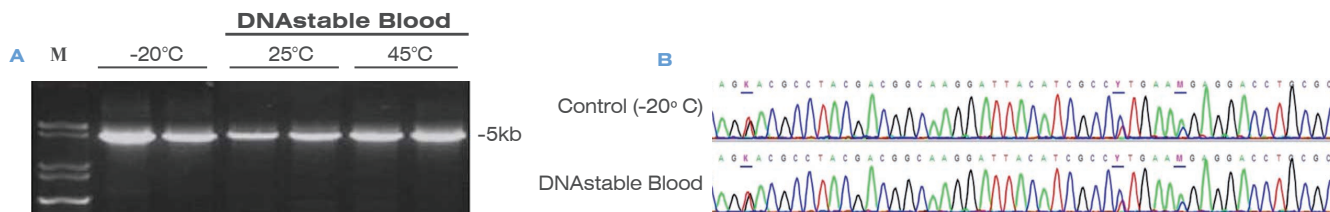
## Stabilization of DNA in Buffy Coat at Room Temperature



**Figure 2. Buffy coat DNA preserved at room temperature for 11 years\***. Human buffy coat samples (200  $\mu$ L) were stored for 27 months under various conditions: at  $-20^{\circ}\text{C}$  (control); in DNASTable Blood at  $45^{\circ}\text{C}$  (~11 years of storage at room temperature\*). After buffy coat rehydration, genomic DNA was extracted and purified using the QIAamp DNA Blood Mini Kit. DNA eluates (10  $\mu$ L) were analyzed on a 0.8% agarose gel. M: markers. RT: room temperature

## Broad range of downstream applications

Blood DNA preserved in DNASTable Blood is suitable for use in any downstream applications, including long-range PCR, real time PCR, genotyping analysis and whole genome sequencing.



**Figure 3A. Efficient PCR amplification of long fragments after 3 years of storage\***. Whole blood sample (200  $\mu$ L) from the same donor were stored for 9 months at  $-20^{\circ}\text{C}$  or in DNASTable Blood Tubes at  $25^{\circ}\text{C}$  or  $45^{\circ}\text{C}$  (equivalent to approximately 3 years of storage at room temperature\*). After blood rehydration, genomic DNA was purified on the QIAcube® (QIAGEN) using the QIAamp DNA Blood Mini Kit. DNA eluates (2  $\mu$ L) were then used in PCR of a 5kb DNA fragment of the human genome using the LongRange PCR Kit (QIAGEN).

**Figure 3B. Successful HLA-A typing after 9 months of storage.** Whole blood samples (200  $\mu$ L) from 3 donors were stored for 9 months at  $-20^{\circ}\text{C}$  or in QIAsafe® DNA Blood Tubes (QIAGEN) at room temperature. After blood rehydration, genomic DNA was purified on the QIAcube using the QIAamp DNA Blood Mini Kit. Purified DNA was then analyzed by sequence-specific priming (SSP; using a commercialized kit) or sequencing-based typing (SBT; using the SBTexcellerator® HLA-A Core Kit).

For ordering information, please call 866-379-6879, email to [info@biomatrica.com](mailto:info@biomatrica.com) or visit [www.biomatrica.com/dnastableblood.php](http://www.biomatrica.com/dnastableblood.php)



Product	Cat. No.	Contents
DNASTable Blood Tubes Trial Kit	93020-017	For 3 samples: DNASTable Blood Tubes, Desiccant & Moisture Barrier Bags
DNASTable Blood Tubes (50)	93027-027	For 50 samples: DNASTable Blood Tubes, DNASTable Blood Tube Carrier Plate, Desiccant & Moisture Barrier Bags
DNASTable Blood 48-well Plates (10)	57022-357	For 10 x 48 samples: DNASTable Blood 48-Well Plates, AirPore Tape Sheets, Desiccants & Moisture Barrier Bags
DNASTable Blood 96-well Plates (10)	90622-026	For 10 x 96 samples: DNASTable Blood 96-Well Plates, AirPore Tape Sheets, Desiccants & Moisture Barrier Bags
DNASTable Blood LD	52001-047	DNASTable Blood LD, 100 mL

\*based on accelerated aging studies in 48-well plate format

