Preserve cellular antigens and prevent cellular degradation for up to 14 days with **TransFix**/EDTA Vacuum Blood Collection Tubes (IVD)

Without stabilisation, flow cytometric analysis of blood samples must be performed within 48 hours of venepuncture. Aged blood samples exhibit indistinguishable cell subsets and inaccurate absolute cell counts, which can lead to erroneous clinical results\(^1\).

TransFix/EDTA Vacuum Blood Collection Tubes (TVTs) are now available as in vitro diagnostic devices in Europe and the USA, intended for immunophenotyping and immune monitoring of HIV patients. Direct draw collection tubes are pre-filled with TransFix/EDTA to immediately stabilise venous blood at the point of collection, preserving the immunophenotype of leucocytes until routine flow cytometric analysis can be performed.

**Benefits of Sample Stabilisation**

TransFix allows recovery of lymphocyte subset markers for up to 14 days at 2-8°C, maintaining the immunophenotypic profile of fresh blood. This provides the following advantages:

- **Reduced variability:**
  - Ensures sample integrity during transportation between testing sites.
  - Reduction in pre-analysis variability – all samples preserved at the same time point.

- **Reduced cost:**
  - Greater efficiency in testing – allows for batching of samples prior to testing.
  - Prevent the need for repeat phlebotomy due to degraded samples.
  - Further tests can be performed on the same sample after the initial analysis, without subject recall.

- **Convenience:**
  - Easy to use - just mix by inversion.
  - Eliminates the need for weekend and evening work.
  - Reduces the impact of unexpected machine breakdown or staff shortages.

**Product Features**

- Prefilled with sufficient TransFix and K\textsubscript{3}EDTA to stabilise and anticoagulate a final draw volume of 3ml or 9ml of blood.
- Immediate stabilisation providing optimal sample stability.
- Ease of application: TransFix/EDTA Vacuum Blood Collection Tubes fit docking sheaths from most manufacturers.
- Sterilised by gamma radiation.
- Compatible with antibody conjugates from multiple suppliers. For more information, visit: www.cytomark.co.uk/transfix_compatible_antibodies.php
**TransFix**/EDTA Vacuum Blood Collection Tubes (TVTs) show equivalent leukocytic profiles at Day 15 compared to fresh blood

TVT stabilised samples show equivalent leukocytic profiles at Day 15 compared to the fresh blood control, with low levels of cellular debris, good separation of CD3, CD4, CD8, CD16+56, and CD45 and CD19 populations, and similar mean fluorescence intensities to fresh blood allowing for clear segregation of leukocyte sub-populations. Figures 1-3 show the flow cytometry dot plots for a HIV patient using these markers.

**Figure 1:** Gold Standard (fresh blood in BD K3EDTA Vacutainer) (Day 0)

**Figure 2:** TVT Stabilised Blood (Day 15)

**Figure 3:** Blood Stabilised with Competitor Product (Day 15)

Benefits of the TransFix/EDTA Vacuum Blood Collection Tube:
- **The green circles** highlight lower cellular debris with the TVT indicative of more robust preservation of cells after 15 days.
- **The blue circles** show the TVT provides clearer differentiation between leucocyte subpopulations (fig 2) compared to the competitor product (fig 3), allowing easier gating of samples after 15 days.

**Product Format**

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<tr>
<th>Product Code</th>
<th>Description</th>
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<tr>
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<td>TransFix/EDTA Vacuum Blood Collection Tubes (1x3ml)</td>
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Visit [www.cytomark.co.uk](http://www.cytomark.co.uk) for details.

**References**