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

Without stabilization, flow cytometric analysis of blood samples must be performed within 48 hours of venipuncture. 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 the USA, intended for immunophenotyping and immune monitoring of HIV patients. Direct draw collection tubes are pre-filled with TransFix/EDTA to immediately stabilize venous blood at the point of collection, preserving the immunophenotype of leukocytes until routine flow cytometric analysis can be performed.

Benefits of Sample Stabilization

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 K₃EDTA to stabilize and anticoagulate 3ml of blood
- Immediate stabilization providing optimal sample stability
- Ease of application: TransFix/EDTA Vacuum Blood Collection Tubes fit docking sheaths from most manufacturers
- Sterilized by gamma radiation.
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. Figure 1 shows the flow cytometry gating for the gold standard control (4mL BD Vacutainer, Day 0) tube for cell markers CD3, CD4, CD8, CD19, CD16+56, and CD45. Figure 2 shows the flow cytometry gating for TVT stabilized blood, Day 15. Figure 3 shows the flow cytometry gating for the stabilized blood using a competitor product, Day 15.

**Product Format (IVD)**

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<tr>
<th>Product Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>TVT-03-2-US</td>
<td>TransFix/EDTA Vacuum Blood Collection Tubes (2 x 3ml)</td>
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<tr>
<td>TVT-03-50-US</td>
<td>TransFix/EDTA Vacuum Blood Collection Tubes (50 x 3ml)</td>
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**Product Formats (RUO) – also available in 9ml tubes**

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<td>TVT-09-1-RUO</td>
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Visit www.cytomark.co.uk for details.

**References**